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INTRODUCTORY LECTURE
ON THE
STUDY OF MEDICAL SCIENCE;
DELIVERED AT THE OPENING OF THE
WESTMINSTER HOSPITAL MEDICAL SCHOOL,
On Saturday, Oct. 2, 1841,

By ROBERT HUNTER, M.D.,
Formerly Professor of Anatomy and Physiology, Andersonian University, Glasgow.

Gentlemen,—The honour has been conferred upon me of commencing the business of this session with a short address; and I cannot perform this pleasant part of my duty more usefully, I conceive, than by directing your attention to certain important points connected with the *study of medical science*. My remarks must be both brief and general. I do not appear before you at present as the teacher or advocate of any particular department of medical science, I am here the representative of all the medical teachers of this school; my theme must, therefore, take an extensive range. Although I shall endeavour to communicate some faint idea of the subjects which medical science embraces, all of which are taught in this school, and all of which you will require carefully to study, still my greater aim at present will be to direct you into the proper method of studying the science: I shall in particular advert to the acquirements *preparatory* to the study of medicine, to *the order* in which the different departments of medical knowledge may be brought most advantageously under your observation; to the *principles* by which your studies and your general conduct should be regulated, and to the *benefits* which superior professional attainments will eventually produce upon yourselves and society.

Medical science is of vast extent as well as paramount importance, and for the attainment of the multifarious knowledge which it embraces, the mind of the student must be originally well constituted—previously educated in certain preparatory branches of knowledge, and fitted for protracted study. Medicine is both a learned and an honourable profession; the subjects which it embraces are more numerous and diversified than those of any other profession, and the investigation of such subjects tends, in an eminent degree, to elevate and expand the mind. Of all sciences medicine is the least insulated; it is incorporated and blended with almost every other department of natural knowledge; and the more intimately acquainted the medical student is with the other departments of knowledge, the less difficulty will he experience in the prosecution of medical science, and the more likely also will he be to promote its interests and extend its boundaries.

As members of a learned profession, you must be acquainted with various departments of *literature* as well as science. Without a knowledge of the Latin and Greek languages, the very technicalities of your profession cannot be understood; and unless you are initiated into the modern languages of Europe, particularly the French and German, you cannot keep pace with the knowledge of the present day; you will be excluded from sources of information, the want of which you will have often much reason to deplore. I might speak also of the advantages of a previous training in mathematical science; for, although the direct application of mathematics to the solution of medical problems is now happily exploded, yet the training of the mind to a rigid and strict method of reasoning is of incalculable advantage, and the best exemplifications of which are found in mathematical science. But mathematics, useful though they be, are of less importance to the medical student than a knowledge of the laws of physics, an epitome of which is found concentrated in man. Without some knowledge of the science of optics, you cannot comprehend the mechanical beauties of the organ of vision. Without a knowledge of acoustics, you cannot understand the intricacies of the organ of hearing, or the principles upon which the varied parts of that organ perform their functions. The circulation of the blood and respiration are, no doubt, vital, as well as mechanical, functions; but even the simplest parts of these functions, the mechanical, cannot be understood without a knowledge of hydraulics and pneumatics. The ordinary

motions of our bodies even, easy of comprehension though they apparently be, cannot be understood, or philosophically explained, without a knowledge of what is called in natural philosophy "the mechanical powers."

Amongst your *preparatory* studies, I would also include mineralogy, botany, and zoology. These sciences are much allied to medicine: almost all our medicinal agents are derived from them. Geology throws a broad light on medical statistics, an interesting department of medical jurisprudence; and a knowledge of zoology is indispensable to the study of comparative anatomy, and consequently is useful in the study of human anatomy; for these two are merely different branches of the same science. I am also strongly disposed to include among your preparatory studies the art of drawing; an elegant accomplishment in itself, and of great practical moment to the medical student. In every department of medical science, you will be called upon to study the form, size, and relative situation of material existences; and what oral or written language can be compared to the delineations of the pencil in expressing such qualities and relations of things: besides, the practice of this art engenders an accuracy of observation useful in every department of science as well as in medicine.

But let me suppose that you have all obtained the requisite *preliminary* education, that you are prepared to enter effectively upon the investigation of medical science, the duty devolves upon me to place before you a short outline of that science, and to urge you to an unremitting, a conscientious investigation of it.

Medical science, as it is now taught, has been subdivided into many distinct *branches*, all of which you will require to investigate with an ardour corresponding with their intrinsic importance: these *branches* will be brought under your observation as separate courses of study, and by thus examining them in detail and in succession, you will more easily attain a knowledge of them all.

That you may be enabled to form some idea of the work that is before you, I shall shortly advert to the different branches of medical science you will require to study, and bring them under your observation in the order in which I think they may be most conveniently investigated.

Some of these departments are *primary* or *fundamental*; and others, indispensable though they be, are secondary or subsidiary. The fundamental or primary branches are anatomy and chemistry: I call these primary, not only because they require to be known before the others can be properly understood, but because the light they shed upon the other departments facilitates materially their investigation.

But even of the two primary branches themselves, anatomy, it must be conceded, holds pre-eminently the first place. What is the great end of medical science? Is it not to prevent, to cure, or to eradicate disease? And as all disease is inherent in some structure, the very first step, therefore, to the knowledge of any disease, is a knowledge of the part or structure in which it resides; for if the structure affected is not known, the disease can neither be treated philosophically nor successfully. Anatomy, then, is of paramount importance; it is, indeed, so indispensable, that without it all your other medical acquirements would be nearly useless. Anatomy, in its proper and extended signification, means the science of organisation; and to what a world of interesting and deep study does such a science naturally lead? It is a science that extends its sway over the whole dominion of organised nature, vegetable as well as animal. That part of the science which relates to animal organisation is so very extensive, that it has been divided into different departments, and in the continental schools these are taught in detail by their respective masters. Hence we speak of different kinds of anatomy, as comparative and human, general and special, descriptive and surgical, developmental and philosophical or transcendental. Although all these departments of science are included, to a certain extent, in every well-conducted anatomical course of lectures, still it must likewise be stated that that part of anatomy which bears most directly upon the practice of medicine will chiefly occupy your attention. As a branch of natural science, human anatomy is of no mean interest; but when viewed in connection with the healing art, its facts arrest and fix the attention, captivate the understanding and the heart, and assume a sacred importance, that when differently circumstanced, or placed in a different relationship, do not belong to them. Human anatomy lies at the root of all your investigations into medical science; it is the foundation on which all your medical investigations rest—it is the polar star to which you are to trust amidst the darkness of practical difficulties and dangers.

As a primary department of medicine, chemistry requires your early consideration; and, fortunately for the young student, a course of chemistry is fraught with ever new and never-failing delight. Chemistry is the science of the elementary constituents of bodies; it leads us, therefore, to an intimate acquaintance with every object in nature. It not only communicates a real knowledge of these objects, but, what is more, it arms us with a power in modifying and changing them, in turning them to advantage in the affairs of ordinary life, in the arts and in the sciences, that he who is thoroughly acquainted with chemistry, though he know nothing more, can neither be accounted an ignorant man, nor a useless member of

society. As a branch of medicine, chemistry cannot be too highly estimated. Without a knowledge of chemistry, you cannot comprehend the nature of some of the animal functions, the composition of our most active medicinal agents, the nature of the morbid products generated by disease, nor see your way through the intricacies of forensic medicine. If anatomy shoots up, and is incorporated with all the other branches of medical science; if, in particular, it is the punctum saliens of physiology—the key-stone of surgery, pathology, and midwifery; chemistry diffuses itself, likewise, among all those branches, and is more particularly blended and intermixed with materia medica, practice of physic, and medical jurisprudence. If the pyramid of medical science has its base widely spread upon the stable foundations of anatomy, chemistry cements the different pieces of which the pyramid is composed, and imparts solidity and durability to the whole structure.

Enough has been said, I presume, to show the importance of anatomy and chemistry, and you would do well to be familiar with these branches before you enter upon the investigation of the others. Get thoroughly acquainted with these fundamental branches, and you will be prepared for the examination of the others, in any order most convenient for yourselves; but as the order in which they are studied may be made to facilitate their acquirement, I would recommend those branches to be first investigated that spring directly from anatomy; and having mastered these, the branches that spring or draw their light from chemistry might next be attended to. In the first class, I would include, 1st, physiology; 2nd, surgery; 3rd, pathology, and, 4th, midwifery: and the second class would comprehend, 1st, materia medica; 2nd, practice of physic; and, 3rd, forensic medicine. These are, indeed, subjects of high import and incalculable utility, and requiring for their cultivation vigorous efforts of the intellectual powers. Let us make a few observations on each department.

And first, of physiology. Physiology, in its literal acceptation, means the knowledge of nature; but in its more usual and restricted signification, denotes the science of organic actions or functions. As these actions appertain both to vegetable and to animal structures, we speak, consequently, both of vegetable and animal physiology; and as such functions may also display themselves in a healthy or diseased condition, we also speak of normal and abnormal, or, which is the same thing, of healthy and morbid physiology. Structure and function are so closely allied, that they must either be investigated together, or the investigation of function must immediately succeed that of structure. Hence we find physiology almost always taught as an integrant part of an anatomical course: and what science can be named that comprehends so many subtle, yet fascinating, subjects of discussion as physiology. We contemplate with a sublime pleasure the working of such a machine as a steam-engine; but in the working of an animal organ, there is more to admire than in all the complicated movements and results of that transcendent effort of human genius. A steam-engine is nothing more than a philosophical and happy combination of mechanical powers; but although there is much in an animal that is purely mechanical, there is also something which mechanics alone can never explain. The human body is, no doubt, a machine of exquisite mechanical structure, but it is also a *living machine;* and the vital properties of its various tissues, and combination of tissues, lead to higher and more refined investigations than those to which mechanical science can conduce. Can we look with apathy at an inferior animal waking from its sleep, springing, as it were, into new existence, exhibiting locomotive powers as if under the influence of magic, revelling in the full enjoyment of all its senses, and displaying all the other energies of its nature? Or contemplating the extraordinary capabilities of man, who, besides displaying those powers that arrest attention in the inferior animals, exhibits likewise those sublime, I had almost said incomprehensible, moral and intellectual endowments, which raise him so far above every other animal, and fit him for purer pleasures and a higher destiny—can we contemplate these capabilities I say, or come to the investigation of such sublime mysteries, without emotion? Man is a living miracle of nature, and were he not so frequently before our eyes, would be viewed as the most astonishing of things.

Complicated, however, as are the functions of man, they may be systematically arranged into three classes: 1st, those of vegetative or organic life; 2nd, those of relative life; and, 3rd, those of reproductive life. The first class includes the functions of digestion, absorption, circulation of the blood, respiration, and secretion, or those powers under the influence of which the system is repaired and continuously supported. The second class comprehends the functions of the motive and sensitive organs —functions, the combination of which constitute *relative life,* or those powers which bring us into close and intimate relationship with external nature, and enable us to appreciate and enjoy that relationship. And, lastly, the functions that constitute reproductive life, or those by which the new being is formed, elaborated, and rendered susceptible of an independent existence. Such are the subjects that engage the attention of the physiologist, and which have occupied the thoughts of medical philosophers of all ages; and although many brilliant discoveries have been made in this rich field of scientific re-

search, yet the science is far from being completed. Your assistance is required. You must prepare yourselves, therefore, to lend a useful co-operation, or even to take a lead in the investigation of this department of medicine.

In every well-conducted course of medical education, surgery takes an early and a prominent place. Surgery was long viewed as the *art* merely of curing external diseases by manual operation, but of late it has been studied both as a *science* and an *art*. As a science it leads to the investigation of *principles* that appertain both to surgical diseases and surgical operations; and as an art it teaches the practical application of these principles, and demonstrates the most approved methods of performing every surgical operation. The *principles* of surgery spring chiefly, if not exclusively, from physiology, and the *practice* of surgery is based directly upon anatomy. The general principles of surgery include the doctrines of inflammation, and its terminations or modes of ending, more particularly those technically denominated adhesion, suppuration, ulceration, and mortification; but all these are but so many operations of the animal economy, and differing less, probably, from the healthy operations of the system, than at first view might be supposed, they are clearly referrible to the doctrines of physiology. But the operative part of surgery draws its light exclusively from anatomy. In every surgical operation you interfere with some part of the body, and whatever may be the object aimed at by such interference, whether to remove a diseased part altogether, as in the amputation of a limb; or to change the condition of some part, as in the reduction of a fractured or dislocated bone, or in the tying of a blood-vessel, your object cannot be safely attained without a knowledge of anatomy.

Celsus has said truly, that amongst other qualities a surgeon requires for the successful prosecution of his art, a good eye, a steady hand, and an intrepid mind. It is perfectly obvious that a purblind, tremulous, and effeminate man is quite unfit for the practice of surgery. But with this admission freely given, we must not suppose that the corporeal endowment is everything in surgery. More men are famed for corporeal than mental powers, and we have far more reason to inculcate the necessity of intellectual than corporeal attainment. With moderate corporeal powers, much may be achieved in surgery, provided the requisite knowledge exists; and without the requisite knowledge, the steadiest hand and the finest eye will be unavailing. Knowledge, like a ministering angel in the hour of darkness, will illuminate your path, will strengthen your hand, will fortify your heart, and carry you triumphantly through difficulties and dangers. Let the attainment of this knowledge, then, be the chief object of your ambition. Without it you dare not venture upon any surgical operation; but with this knowledge in store, even without the full complement of Celsian requisites, you will bring the most difficult and dangerous of surgical operations to a successful termination.

After you have studied carefully surgical science, you will be prepared to enter upon the more extensive field of pathology. Pathology is the science of disease, and as disease exhibits itself either directly in the form of some structural change, or indirectly under the appearance of some functional derangement: pathology, consequently, includes morbid anatomy, or the science of diseased structure; and morbid physiology, or the science of diseased function. It is the object of pathology to establish the relationship between diseased structure and deranged function, and to trace every symptom of disease to its proximate or structural cause. The knowledge of a disease includes a knowledge of more than *symptoms*. These are but the signs or externals of disease, the shadows that indicate the existence of the substance. I do not say that the study of symptoms should be neglected; far from it. Though they are not the disease itself, they are important adjuncts; they are signals from within, which, when their proper value is known, may be turned to the greatest advantage; they are the natural and expressive language of disease, but a language intelligible only to those who have carefully studied its import. So far from undervaluing the study of symptoms, I would say that your knowledge of such phenomena cannot be too extensive, provided you learn the real value of each symptom, which you can only do by tracing it in its true cause. Notwithstanding the strides that pathology has lately made under the scientific direction of an Andral, a Laennec, a Cruveilhier, a Louis, and others, as a science, it is still in its infancy; and when we recall to mind that all diseases originate in the molecules of our varied and complicated tissues, the extreme minuteness of these molecules, the difficulty of ascertaining, consequently, the textures primarily affected, and the order of succession in which the different textures are involved, you can readily believe that much time and laborious and prying investigation will be required to carry such a science to perfection.

I have referred to pathology as a separate department of medical science, and as an insulated subject of study. It seems, however, to be a prevailing opinion in the schools of this country that a separate course of pathology is not required; that it can be taught with most effect in connection with practice of physic, surgery, and midwifery, with which it is, indeed, incorporated, and inseparably connected. In these courses of study, then, all the facts and doctrines of pathology will necessarily be brought under your observation.

As a department of medical science, you will be called upon, also, to study the principles and practice of midwifery. Obstetrical science, which is another name for the same thing, embraces an important section of the medical history of the female part of the human race: it includes the anatomy, physiology, pathology, and surgery, of what relates to the generative process; and in superintending the varied natural as well as morbid conditions of that process, the medical man, placed as a guardian at the portals of society, is capable of exercising a decided influence on the numerical condition, and on the well-being of the human race. This highly useful department of medical science leads to the investigation of the nature of the reproductive process, and to the condition of the female during the interesting periods of utero-gestation; it establishes rules and principles of practice applicable both to the mother and child during the painful and often dangerous process of parturition, and it leads to the study of puerperal diseases, and more generally to diseases incident to women and children. These are subjects of uncommon interest as well as great practical utility—subjects that will necessarily engage much of your attention during the whole period of your professional lives; and if you have a heart that can feel for the most amiable part of the human creation, or if you have a regard for your own welfare, no words will be required to urge you to the attainment of that knowledge which will enable you, in cases of emergency and overwhelming danger, to lend a speedy and effectual assistance, to be so immediately and so eminently useful.

After you have investigated the foregoing departments of medical science, you will be prepared to enter upon the study of materia medica, practice of physic, and forensic medicine. I have named these branches of science in the order which I think they may with propriety be studied.

As it would be preposterous to prescribe medicines regarding the virtues of which you are totally ignorant, you must, therefore, get acquainted with the properties of the medicinal agents before you venture to apply them in the treatment of diseases, or, in other words, in the practice of physic; and you must be conversant with these and every other branch of medical science before you can be prepared to comprehend the doctrines of forensic medicine.

As a department of natural history, materia medica is highly interesting; and, as a branch of medicine, it is to the medical practitioner indispensably necessary. Experience has proved that many substances that exist in nature when introduced into the body are capable of producing extraordinary changes upon the living system. The science of materia medica takes cognisance of medicinal agents of every kind; investigates the natural history and sensible properties of these agents; the manipulations required in preparing them for use; the quantities or doses proper to be used in given circumstances, and the modes in which they may be combined and most conveniently administered. Materia medica is not only an interesting and useful, but a most extensive department of medicine; it draws its resources from every kingdom of nature. With one foot resting on the sciences of mineralogy, botany, and zoology, and the other on the science of chemistry, it waves its sceptre over the whole of animated and inanimate nature. Botany and chemistry are but its handmaids; and although comparatively few medicinal agents have yet been selected from the innumerable objects that surround us, as our knowledge advances the number will increase, and the happy time will probably arrive when medicines of efficacy, when *specifics* will be had for almost every disease incident to humanity.

The practice of physic to which your attention must, in the next place, be directed, refers to the treatment of diseases denominated *medical* in contra-distinction to those purely *surgical*. The principal object of medical science is the successful treatment of all kinds of disease; and as those diseases referred to in this department of medicine, comprehend the most numerous and most fatal of human maladies, too much attention cannot be allotted to this department of the science. To treat any disease successfully, you must know what the disease really is, its exciting cause or causes, how much nature can effect towards the cure, and what remedial agents you yourselves must supply. Pathology teaches us the nature or structural character of the disease; and the object of the practice of physic is to investigate still farther its exciting cause or causes, for a knowledge of these is useful for prevention as well as for a cure, to discover the symptoms or signs by which any disease may be recognised or distinguished from other diseases, and to apply those medicinal agents that experience has proved to be of greatest efficacy. The practice of physic as taught in many of our schools is generally too much allied to systems of nosology: the student is made to look at nature not simply with his own eyes, but through the dazzling and bewildering medium of artificial systems: these systems are generally the offspring of speculation; they lead the young student into error, and the man of practice learns to disregard them altogether. Every disease must be studied for itself, and to study it a right recourse must be had to the book of nature.

Judicious lectures on the practice of physic are, no doubt, useful; they conduct the student into the right method of investigating the subject; they bring before his mind both important facts and general principles of treatment. But useful though such lectures

confessedly are, it cannot be too frequently impressed upon the mind of the student that the discrimination of disease must be the result of observations made at the bedside of the patient; and the more carefully these observations are made, the more accurate necessarily will be his knowledge of the practice of physic. In this school the student has ample opportunity for studying this department of science to advantage. Besides the daily lecture, he has our extensive and well-conducted hospital thrown open to his use, where the practice of physic as well as of surgery may be learned under the immediate superintendence of able, experienced, and distinguished men. With these facilities for improvement, you will be enabled to store up a fund of useful knowledge, and which may be turned by you to advantage long after you have left the schools, and entered upon the laborious and trying duties of professional practice.

In the last place, your attention must be directed to forensic medicine; a department of science in which all that is intricate as well as interesting, in every other department of medicine, are accumulated and concentrated. Forensic medicine, medical jurisprudence, or state medicine, as it has been called, is only of very modern growth, and, like legislation, has arisen from the vices of men. Knowledge necessarily brings with it a refinement in vice as well as virtue. But if knowledge carry with it some evil, the good which it produces always greatly preponderates; if knowledge carry with it "the bane," it furnishes also "the antidote," and every page of the history of medical jurisprudence is a splendid illustration of the fact. This department of science has a greater reference to the *social* than the *individual* state of man: it leads us, consequently, to the investigation of medical science under a new and highly important relation; it prompts the student to investigate aright every important medical incident that can fall under the cognisance of judicial authority; it teaches the proper methods of investigating the cause or causes of death, under whatever form or combination of circumstances that event may arise; and it leads still farther to the investigation of whatever can effect the physical condition of families, of states, of communities, of people, and nations. These subjects are obviously of a highly philosophical character, and fraught at the same time with uncommon interest. When we look at the effects of a medical practitioner, as he toils day after day in the routine of *ordinary practice*, we see striking, though it may be humble, instances of the importance of medical science to the well-being of man; but when we behold the same individual at another time as the medical jurist investigating a case of death by poisoning, a case of infanticide, or any of the nicer subjects which medical jurisprudence embraces, medical science then assumes a more imposing aspect; it then appears as the guide of the judge upon the bench directing his course of procedure, and influencing his decision—as the instructor even of the legislator suggesting laws that can improve the physical condition and character of man.

Having thus attempted to place before you a brief outline of those branches of knowledge taught in this seminary, the aggregate of which constitutes medical science, I am now prepared to make a few remarks upon the *proper mode* of investigating medical science. Medicine, it is to be remembered, is a department of *physical* science, and to examine it aright it must be studied practically. Theoretical knowledge is knowledge only in appearance. Medical knowledge, worthy of the name, consists of facts cognisable by the senses, and, I had almost said, of nothing more, "Homo naturæ minister et interpres, tantum facit et intelliget, quantum de naturæ ordine re vel mente observaverit: nec m plius scit aut potest."—(Bacon.) Such facts require not only to be carefully and accurately observed, but they must be arranged and classified, and with extreme caution reduced to general principles: still these classifications and principles are nothing without the facts themselves; the facts constitute not the foundation only, but the most substantial part likewise of the superstructure of medical science. Unfortunately, there has been too great a disposition to leave practical investigation for theoretical pursuit; to make useless speculation take the place of sound observation. In the attainment of knowledge, the first step is the acquisition of undoubted facts; pure conjecture should be entirely discarded. Were this simple proposition uniformly attended to, medical science would soon be relieved from a weight of rubbish which presses it to the earth, and prevents it from displaying its fair proportions, its celestial energies. The inordinate love of theorising has been the bane of medical science in all ages: in the earlier periods it choked up the very fountain of medical science, and the impure streams that still descend to us demonstrate that the fountain has not yet entirely regained its purity. When conjecture takes the place of observation, and imagination that of judgment, what useless results can be anticipated? Absurd vagaries will be substituted for facts, and ridiculous and dangerous errors for sound knowledge. Supposition or conjecture is not knowledge; a medical theory is little better than a dream, it may amuse, indeed, but it cannot instruct. I do not hesitate to say that every medical theory has been hurtful to medical science; and the more noted the propounder of such a theory, the more serious has been the evil: medical theory bears the same relationship to sound medical science that romance holds to true history. Versimilitude rather than truth is the object of both, and we all know the difference between resemblance and

reality. In illustration of these views, I might place before you the history of Darwin and John Hunter: the former, a dazzling genius, that conjectured much and did little, and whose name can rarely be mentioned in connection with medicine but with regret; the latter, a sober philosopher, who calmly observed and patiently interrogated nature, and whose name is identified with medicine, and as immortal as the science it adorns.

Having thus adverted to the principle by which we are to be guided in cultivating medical science, I shall now refer shortly, Gentlemen, to the manner in which the science ought to be studied by you. And here again I would inculcate the propriety of studying *practically* every department of the science. Too many rely upon books and lectures for a knowledge of their profession; but no man by these means alone can obtain a knowledge of anatomy or chemistry, or indeed of any department of physical science. To know any branch of medicine thoroughly, you must know it practically. The time was when attendance upon lectures was deemed adequate to all the purposes of medical education; but more just and philosophic views of the human mind and of science have of late been evinced by the different medical corporations of this country. Medical education is now of a more practical description than it was some few years ago: it is now imperative on the student to study practical anatomy, practical chemistry, practical pharmacy, and clinical medicine and surgery. This is a decided improvement upon the old system; but the practical plan is not carried far enough, medical education should be practical throughout; and to secure the requisite practical investigation by the student, no diploma in surgery or medicine should be granted till the student has demonstrated, not by words but by acts, his practical knowledge of every department of the science. Such a law would have a most salutary influence: practical, and consequently useful, knowledge would abound, and the profession rendered still more respectable, would recommend itself more and more to the favourable consideration of the community.

In prosecuting the study of medicine, the student is apt to fall into the error of attempting to overtake too many branches of the science at the same time. I have known students attending in one session six courses of lectures, besides hospital practice and clinical medicine and surgery. If the mere act of feeing a class would secure the acquisition of knowledge, then I admit that such procedure would be followed by the happiest consequences; but if knowledge is to be acquired by deep study, and particularly if it is to be acquired by practical study, we cannot reprobate in too strong language the adoption of such a system. We all know, indeed, how sanguine the young man is when entering upon the study of any profession, and it may appear impolitic and imprudent to check his ardent aspirations after knowledge; but whilst we would rather urge on the student in the career of improvement, than attempt in any way to arrest his progress, it is our duty to give a proper direction to his efforts. A very little reflection will convince the student that by forcing on his studies in the way to which we have alluded, he imposes upon himself a burden which he cannot bear; that the energies of his mind will be overpowered and frittered away by too many distracting subjects operating upon him at once; that instead of learning much he will learn little or nothing; or if he perchance pick up some facts as they fall from his teachers, they can only in his mind be the semblance or verbal representation of facts; and even in this state they become jumbled together into a chaos of confusion. If the student would study successfully, he must not attempt too many things at once. The majority of men have limited intellectual powers, and knowing this condition of human nature, it is better that the student should do little, and that little well, than by attempting too much to do nothing successfully. The student, I conceive, should not engage in more than *two new* branches of study in any session. These he may do justice to, provided the requisite attention is bestowed; these he could study practically; and besides attending the lectures on the department of knowledge he is then investigating, would have some time also for reading and thinking.

Besides attending upon lectures, and engaging in the practical investigation of science, a proper course of reading, Gentlemen, is quite indispensable. From the high price of medical publications, it cannot be expected that you can purchase all the books you require to read; the best systematic works on each department of medical science you must indeed procure: these are text-books, which must be constantly before you. Your reading, however, cannot be too systematic and select. While studying a particular department of science, you should not only confine your reading to that department, but you should, if possible, make all your reading go hand in hand with the lectures, or with your practical studies. All the light you can procure will thus be concentrated upon the science you are at the time investigating: justice will thus be done to your studies, and no time lost in literary dissipation—a vice, for I can call it by no other name, which, if yielded to, will unfit you for practical and useful study. Habits of study are necessary to your future success: the life of a medical man should be one of continual study. If you have neglected to form these habits, let no time be lost, set about the undertaking immediately; and the more uninterruptedly you persevere in your studies, the sooner will these habits be formed. To

attain this important object, I would recommend regularity of attendance upon your classes, assiduity in whatever practical studies you may be engaged; and in particular I would urge you to devote a stated period of each day to reading and reflection. This regularity of procedure may prove at first somewhat irksome, but let me beseech you notwithstanding to persevere: the first part only of the journey may seem uninteresting and tedious, but persevere, and the prospect will brighten as you proceed, till you experience in your progressive career nothing but delight. Study itself, then, will be a source of extreme gratification. "The hill of science," says Milton, "is steep and rugged in its first ascent, but else so smooth, so green, so full of goodly prospects and melodious sounds on every side, that the harp of Orpheus is not more charming."

The cultivation of the understanding and the storing of the mind with useful knowledge are indispensable requisites, indeed, for professional success; but it cannot be too strongly impressed upon you, that to attain professional pre-eminence, a *moral* training is as necessary as the intellectual to which I have referred. In the exercise of his profession the medical man is carried into the bosom of families, entrusted with individual and family secrets, and many delicate as well as grave and important matters confided to his honour: he requires, therefore, to be a man of seemly demeanour, whose passions are easily restrained and controlled by reason, and whose conduct is regulated by the strictest morality and nicest sense of honour. These moral qualifications shed a bright and steady lustre over the acquirements, and confer true dignity upon the character of the professional man.

Such, then, being the subjects which medical science embraces, and such the means by which professional respectability can rationally be obtained, it remains for me only to advert to the advantages that will arise to society and to yourselves by the *successful cultivation* of medical science.

To attempt by any extended process of reasoning to show the importance of sound medical knowledge to the well-being of society, would indeed be a work of extreme supererogation, it would be painting "the lily" and "gilding refined gold." Compare the barbarous character and fatal issue of *surgical* operations at the time of Ambrose Paré with the surgical refinement and efficiency of the present day, and tell whether the progress of medical knowledge has not been beneficial to mankind; or glance at the history of "*medical*" diseases since the time only of Cullen, and say if we have not in our confessedly more just views of the nature of disease, in our less empirical, more philosophical, and more successful modes of medical treatment, arguments the most potent for the progressive improvement of medicine, and in favour of its importance to the well-being of man. Every discovery of medicine tends to increase our power over disease; and unless pain be a matter of indifference to those who feel it, every medical discovery and every improvement in medical science must tend to promote human happiness.

So long as health is an object of universal interest and individual solicitude, medical knowledge will be held in high repute, and its successful cultivators ranked among the benefactors of the human race. In the extensive domain of medical science, you have a fair field for the legitimate exercise of your talents, and the strongest motives to scientific improvement. Professional knowledge may lead you to wealth and honours; or if from circumstances these are unattainable, it will lead to an inward satisfaction, to a peace of mind which wealth and honours cannot bestow. Such rewards as these are not, however, to be gained without great labour. The time was when every member of the profession, with moderate ability and ordinary industry, was certain of success. But circumstances have greatly changed: the profession is now stocked with able and learned men. The sources of promotion in our army, navy, and colonies, are much dried up. You must not look now for success from adventitious means, you must depend upon your acquirements; and with substantial medical acquirements your success cannot be problematical. Persevere, however, you must, if you would succeed in your profession; and every motive prompts to vigorous and unremitting exertion. Some of you have been sent here by relatives and friends from a great distance, and neither trouble nor expense spared to qualify you for an honourable place in your profession; will you repay with ingratitude the outpourings of your relatives' kindness and affection? will you blast their fondest expectations? will you ruin, it may be, their peace of mind? No, surely; for by inflicting misery upon them, you entail wretchedness upon yourselves. It is your *interest*, as it is assuredly your *duty*, to study carefully your profession; and whilst you thus labour to promote your own interests, you have the encouraging idea that, in a corresponding degree, you tend to promote the happiness of the human race.

I have now brought this discourse to a close, yet I cannot permit the present opportunity to pass without tendering my acknowledgments to the governors of the Westminster Hospital, and their committee, for the honour they have conferred upon me, in withdrawing me from the comparative privacy of a provincial locality to the great metropolis, I may say, of the world: an honour which I shall endeavour to merit, not by words, but by the unremitting and conscientious discharge of the duties appertaining to my situation.

Permit me also to say, that I feel it no

small honour in having been appointed to open the school under the new and auspicious arrangements that have been made: arrangements that have brought the school and hospital into bonds of close and intimate alliance, and which are calculated not only to secure permanency and success to the school itself as a seminary of medical learning, but also to *develop* and *transfer* the means of greater efficiency to the internal arrangements of the *hospital itself*. For my own part, nothing will be nearer my heart than the success of our school; and from what I know of the feelings and determinations of my colleagues, no effort will be wanting on their part to do justice to the departments of science over which they so ably preside, and to raise the reputation of the school to the highest celebrity.

EXPOSITION OF A METHOD EMPLOYED FOR THE

CURE OF CONSUMPTION,

BY FRICTIONS WITH

OLEUM ANIMALE FŒTIDUM,

CONNECTED, AS REGARDS THE PRINCIPLES, WITH THE "LARD-CURE" AND "INHALATIONS."

By Ulric Palmedo, M.D., of Berlin.*

CHAPTER II.

EFFICACY OF THE OLEUM ANIMALE FŒTIDUM IN PULMONARY PHTHISIS—INDICATIONS AND CONDITIONS UNDER WHICH ITS APPLICATION MAY TAKE PLACE.

The facts narrated in the preceding chapter sufficiently prove that a cure of pulmonary consumption may be effected in its last two stages. The first stage of this, as well as of most diseases, occurs but rarely in our practice: nevertheless, I have met with several cases of the cure, by this oil, of pulmonary tubercles in their earlier period, but I thought it superfluous to give a detailed statement of them, because, in the first place, the diagnosis in the earliest development of this malady is difficult and ambiguous; and, secondly, the ordinary rational treatment is such, that a cure, or at least a temporary cessation of the progress of this disease, is possible, and may be effected; lastly, it is evident that a remedy which affords so sure an aid in the two last stages, cannot fail in its power of removing this distemper in its earliest development.

It is true, that not all the experiments I have tried with this remedy have had an effect equal to those heretofore described, nor even always favourable results. At the commencement of my attempts, I have several times essayed the same remedy with equal punctuality, and yet observed but little improvement, perhaps none at all, or it may be unfavourable effects. I hence infer, that this remedy, like many others, possesses its own peculiar conditions and contra-indications, in short, that it is no catholicon against consumption. The more detailed statement, in which cases these trials were not successful, and the inferences which I draw from them form the subject of this chapter, which I shall begin by stating the results of my observations, so far as they refer to the degrees of the efficacy of this animal oil on the divers classes of the phthisis of the respiratory organs.

I. I had only one occasion to apply this remedy of the animal fœtid oil in the genuine *phthisis laryngea*, and do not feel encouraged to repeat this experiment; for the effect, though not quite unfavourable, was of no real and eventual benefit. The frequency as well as the intensity of the cough, it is true, subsided at the beginning, and there was a slight alleviation of pain; but these advantages were of no long duration, for the old symptoms gradually resumed their former violence, even during the continuance of this treatment: I was, therefore, obliged to abandon it, and to have recourse to another, which might give prospect of a more favourable result, if not as to the radical cure, at least as to the suppression of the most urgent, vehement, and distressing casualties. The subject of this cure, a female of about thirty years of age, entered, soon after, the *Charité* of Berlin.

The experience derived from ancient practice, joined to that of the present day, tends to prove, that amongst the various classes of phthisis of the respiratory organs, that of the larynx offers the most unfavourable prognosis. This fatal circumstance is somewhat abated by the unfrequency of this disease; for all accurate observers agree that the cases of the genuine phthisis laryngea are very scarce, that is, of that disease which has its *origin* in the larynx itself; and that the plurality of cases of consumptive affections of this organ, though they are often mistaken for original and genuine laryngean phthisis, are to be considered as possessing no idiopathic character, as simple sequences of tubercular pulmonary consumption, and as either consisting in a mere inflammatory irritation and superficial ulceration of the mucous membrane, or as arising out of a propagation of the morbid process from the tuberculous lungs towards the trachea and the larynx. In the former cases (of mere superficial ulceration), the laryngean disorder will be removed by the cure of the pulmonary disease, which is its cause as well as its basis; as regards the second cases (which arise from the tubercles spreading from the lungs), they will be prevented by an early cure of the evil when it is still limited to the lungs, I shall treat more particularly of them when I have occasion to speak of the *complications* of the *phthisis pulmonalis*.

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* Continued from p. 57.

II. I have observed still less favourable, and, in fact, directly unfavourable effects from the application of this animal oil in the cases of *phthisis pulmonalis pituitosa*, I have tried it here only twice; and, all other remedies having been for a long time applied without the slightest effect, I was each time induced to make trial of this oil rather from despair than from definite indications unknown to me, at a time when I had not yet acquired sufficient knowledge of the mode in which this substance would act on the lungs. The subject of one of these cases was a man of upwards of sixty, who, from a naturally good state of health, had been affected two years ago by a chronic pulmonary catarrh. This disease had become much worse in the spring, but had not been attended by inflammatory or febrile symptoms; the entire career of the disease, its actual character, and an accurate and repeated investigation of the chest, procured an indubitable diagnosis. From an application of the animal fœtid oil during ten days, no diminution resulted either of the cough or the expectoration; both, on the contrary, became much worse. The oppression and asthma which had been observed in the other cases where this remedy had been employed, also appeared in this instance; but in dangerous conjunction with so strong a rattling in the chest, that suffocation was to be apprehended. There came on an œdematous swelling of the feet, which abated as soon as the intermediate oily frictions were suspended; some gastric symptoms also made their appearance. Further trials with the oil were immediately discontinued, and those remedies which are usually recommended for the treatment of this pituitous disease were resumed, but, as before, without the smallest benefit. The patient died eight weeks later, in a complete state of prostration.

I shall have occasion to show in the next chapter how the theory, as to the way in which this remedy, the animal fœtid oil, operates, can, in a natural and unconstrained manner, and with a certain degree of conclusive precision, be deduced from the symptoms which accompany pulmonary affections, as well as from the stethoscopic perceptions of the changes in the lungs: and again, from this theory the inefficacy of this oil when applied in the treatment of pituitous consumption, may be inferred, *à priori*. For, in this special class, which is also called the spurious phthisis, because it simply consists in a violent chronic catarrh of the lungs, these organs are perfectly healthy in their organisation; the vitality only and the secretion of their mucous membrane are in a state of alteration, viz., in a state of slackness and atony, the effect of a preceding irritation. This lax state is directly contrary to that in which the mucous surface is observed to be in phthisis tuberculosa, and the influence of the animal fœtid oil, so beneficial in tubercular consumption, cannot but render worse the pituitous one. This remedy which acts on the surfaces of the breathing lungs, as probably, also, on those of the tuberculous ulcers so as to lessen irritation, and to have a calming and almost narcotic effect, and which, by its peculiar quality of aggravating the respiration, has the most beneficial influence in tubercular consumption, cannot but also augment the difficulty of breathing in the pituitous phthisis, where, however, this effect is not only altogether useless, but where the distemper must necessarily be aggravated by the extension of the inflammation of the mucous membrane, which is its real seat.

It is fortunate that this spurious or pituitous phthisis, if compared with the true tuberculous one, is of rare occurrence, and that its cure in many cases may be attained by other means. If, therefore, the efficacy of my new method of healing tubercular consumption should be fully established by continued experiments, a proportion directly opposite to that which hitherto existed would consequently take place, as far as regards the prognosis of these two principal classes of pulmonary diseases.

III. The real ulcerated phthisis, *phthisis exulcerata ex vomicâ*, which is sometimes observed as the result and termination of a violent and neglected inflammation of the lungs, is, doubtless, the least frequent of all classes of consumption. It is true, that no instance has presented itself to my observation since my discovery of the treatment with animal fœtid oil; but I should not hesitate to apply this remedy in the first case that presented itself of this nature, and I should do so with a most confident, and, I think, well-founded hope of success. The efficacy of this oil on the lungs consists therein, that it diminishes the sensibility and irritation of the lungs, exerts an ameliorating influence on the secretion of the purulent matter, approaches the parietes of the excavations by compression of the latter, and consequently promotes the healing and cicatrising process. All conditions, therefore, which admit of and point out the application of this remedy, exist as well in this exulcerated phthisis as in the tuberculous one. Between a tuberculous excavation and an abscess caused by pneumony, there is no essential difference, but such as lies in their respective genesis and the original disorder from which they sprung. But in either case this remedy can be of no effect against these genetic circumstances; as little can it remove the inflammation which had preceded the vomica and had been absolved, as the dyscrasy, which is the fundamental cause of the formation of tubercles. Against this dyscrasy a careful prophylactic treatment, and, after the completion of the principal cure with this oil, an appropriate confirmatory treatment ought to be directed, with a view to guard against any ulterior formation of tubercles. Such prophylactic

as well as confirmatory and finishing cures are not only rendered by no means superfluous by the use of this remedy, they, on the contrary, will form, as they did before, an important, and, perhaps, the most difficult practical problem in the cure of consumption. And, in like manner, with regard to the exulcerated phthisis of which we speak, it is evident, and scarcely necessary to be observed, that on applying this animal fœtid oil, not only every really inflammatory state of the lungs ought to be previously and completely removed, but that also during the use of this remedy an energetic treatment ought to be perseveringly directed against the accumulation of blood in the lungs, and against the condensation of their parenchyma, with a view to prevent as much as possible these accessory effects of this oil, which else might in these cases be particularly prejudicial.

IV. No case, as I said before, of the preceding ulcerated class having presented itself, the *tubercular* consumption, *phthisis tuberculosa*, also frequently called *purulenta* in opposition to the pituitous one, is therefore the only class in which the effects of the oleum animale fœtidum has proved salutary in my experiments; but it is a disease that is unfortunately most widely spread, and, as before mentioned, is by far the most frequent of all classes of phthisis.

Just as there are entire forms of phthisis of the respiratory organs (the genuine laryngean and the pituitous consumption) which do not admit the application of this method, or give prospects of no very favourable results, so there are also cases in this special class of tubercular phthisis where no advantage can be expected from this oil. These are cases where the destruction in the lungs has acquired too great a degree of development either in *space* or as to *time*, or where there exist *complications* with other diseases that endanger life or impede a local process of healing. We shall see that such unfavourable combinations are but too frequent; but as far as their origin is dependent on a previous neglect in removing the tubercular disease whilst it was still single, limited, and curable, they will become scarcer, the more the possibility of curing by this oil shall be made manifest, and the more generally this remedy be applied.

My experiments on this part of therapy not being sufficiently numerous, for the present I shall merely review the most important and frequent conditions of tuberculous consumption, with a view to show how far they conform to this method with the animal fœtid oil, or, on the contrary, preclude any hope of success, either because they presented a too refractory character to my trials, or because I despaired, *à priori*, from evident reasons and insuperable causes, and in consequence did not even commence an application that could not have had other than vain or prejudicial results.

In the first place, as to the degree of the disease, we may consider it under three points of view; with respect to the progress in *space* or in *time*, or with regard to its intensity.

1. *Space; Extension of the Pulmonary Tubercles.*—It is known that the larger tubercles and excavations are almost exclusively found in the superior lobes of the lungs, whilst the inferior are either quite sound, or the tubercles, if met there, are comparatively small, not larger than a pin's-head, few and dispersed: excavations are seldom discovered there. The cause of this phenomenon most probably lies in the proximity of the large vessels, and in the little extensibility of the thorax at these upper regions, whereby the respiration there is constrained, the circulation of blood and the consequent change of particles and elements is prejudicially checked, and therefore stagnancies and depositions of morbid matter are assisted. We frequently find only one lung attacked by such tubercular formations, and sometimes many and extensive caverns and considerable condensations in a large part of it, whilst the other half scarcely presents any irregularity. Percussion and auscultation afford results which correspond with those of dissection. It is not unfrequent that on percussion on one side of the chest (more commonly on the left) such a clear resonance is distinguished as is seldom met with in healthy persons; nor does auscultation discover in that part any large excavation which on percussion rarely gives a sound that is flat and dull: at the same time, the combined stethoscopic signs may disclose the most considerable tuberculous destructions in the other half of the chest. This, however, should not mislead to an absolute assertion, that the half where the sound is so clear is still healthy and completely free from tubercles. On the contrary, the dissection of the bodies of such individuals sometimes brings to light a number of crude tubercles dispersed throughout this lung, which appeared so healthy during life; and, likewise, stethoscopic exploration in a later period of the disease sometimes discovers evident signs of incipient excavations which must necessarily have been preceded by crude tubercles, howsoever latent and undiscoverable these may have been before. This apparent contradiction may be explained by the extraordinary anæmia which takes place in many consumptive persons, particularly in the later stages, and by the enlargement of the air-vessels and the bronchi; an enlargement caused by the increased activity of this comparatively healthy lung, and by the chronic bronchitis which so often accompanies consumption. The two latter circumstances I am, moreover, inclined to consider as the efficient cause why we so often observe a most unequal spreading and development of this disease in the two lungs and their respective lobes.

Nevertheless, there are unfortunately instances where the degeneracy in the lungs is spread so universally and equally, that all the lobes, and all in their entire mass, are, if I may be allowed the term, sown over with tubercles. These cases particularly happen in individuals who, with an hereditary tendency to consumption, have been totally neglected in their childhood, have been affected by the highest degree of scrofula, and latterly bear the most distinct marks of an inveterate dyscrasy in their entire cachectic habit, and have not attained their natural state of puberty, although beyond the age when they should have acquired it. In these individuals particularly, as also in elder ones of this sort, who have had the chance to outlive this period of pubescent development, so perilous in consumptive cases, we observe the so-called hippocratic knob-like finger-ends with curved nails, which, it is plain, are to be considered as symptoms, not of consumption, but of the radical evil that produces it; that is to say, of that state of dyscrasy where the lower spheres of vegetation thrive at the expense of the higher ones. Fortunately these cases of an equal and universal dispersion of pulmonary tubercles are rare when compared with the other, as individuals thus affected generally sink under the various other consequences of the pervading dyscrasy long before a development of consumption can take place. To this category of widely and equally spread tubercles also appertain some instances of an *acute* phthisis, fatal even in the first stage; but not all the observations that have been brought forward as such, p. e., by Andral and Louis, fall into this class; not the numerous tubercles discovered at dissection, but totally different circumstances having evidently been the cause of sudden death in many of these cases.

In cases of this deviating species or variety, which might be called the cachectic phthisis, a cure can certainly not be expected, which, if we suppose it could take place, still would be vain, because the other coexisting evils and the general cachexy would soon put an end to life.

But as long as the physical investigation of the chest allows the inference that no too small a portion of the lungs is still in a sound state, and that the condensation within the excavations and the tubercles is not yet completely impervious, all hope should not be given up of healing the most extensive tuberculous destructions, if not accompanied by other unfavourable symptoms. An attentive auscultation at the various places and surfaces of the thorax may sometimes still disclose a respiratory murmur in such portions of the lungs as, merely investigated at one surface, p. e., the anterior one, appeared totally degenerated.

I confess that the cure by means of the animal fœtid oil, when there exists an uncommonly wide extension of tuberculous disorganisation, cannot take place but with comparative slowness; but it is sufficiently consoling that it finally does, if requisite precaution and perseverance are adhered to, if a few advantages obtained are not deemed satisfactory, nor the rest is abandoned to self-aiding nature, which, though active, is generally too feeble in these extreme cases. In those of a less widely-spread evil, it is evident that the smaller the extent of the tubercular degeneracy, and the healthier those portions of the lungs which remain exempt from the disease, so much the more easy, quick, and striking will be the salutary effects of this animal oil, and the complete and certain convalescence of the patient. For the rest, it is observable that the somewhat greater or smaller extension of the disorder is not of such considerable influence on the quick success, as various other circumstances which depend on the age, constitution, temper, and personal situation of the patient, as also on other variations and complications of the malady.

2. *Time.*—Concerning the length of time during which the disease has developed itself, that is, concerning the stages of consumption, we find, if we consider its curableness by means of this oil, almost the reverse of the proportion which is remarked as to the progress in extension of space. According to my experience, not only all the periods of consumption allow the hope of a cure by this method of frictions with animal fœtid oil, but the last stage of this disease, hitherto the most hopeless, is exactly that in which, under not unfavourable circumstances in other respects, I have observed the most rapid and remarkable progress towards convalescence. This assertion, I allow, may at first sight appear exaggerated; nevertheless it is true, and based on experience, and its correctness can, moreover, be deduced from pathological principles.

Instances of the cure in the second and third stages have been circumstantially given in the first chapter. An extreme falling away of flesh; an hectic fever, not only distinct but violent; a continual and tormenting cough, attended by an extremely copious and purulent expectoration; profuse colliquative sweats; commencing diarrhœas; hydropic infiltrations of the extremities, &c.; all these phenomena which distinctly predicted an approaching dissolution, far from excluding the possibility of a cure by this oil, often disappear in the greater part within four to eight days after the application of this remedy, and entirely after no great lapse of time, and are succeeded by a perfect convalescence.

Of late I have not had frequent opportunities of observing the first stage of consumption, which seldom comes under our notice, and still less so under our medical care, the labouring classes particularly not calling for assistance until they are disqualified to work;

I, nevertheless, had the satisfaction of finding a confirmation of the efficacy of the oleum animale fœtidum in several instances of consumption in this earliest stage. I have already previously stated the reasons why I have not thought it necessary to narrate these cases, in addition to which motives I shall add the following. These instances, in the first place, did, of course, not furnish such evident results as the observations of more advanced consumptive cases do, and my present intent is solely limited to publish the more striking effects of this method, and not to attempt a complete scientific treatise on consumption, from which I am as yet deterred, owing to the limited number of appropriate experiments. Another motive why I omit my observations with regard to the first stage, is the extreme length of the cure of the disease in this early period, which is the cause why I cannot as yet properly cite these cases as instances of a complete cure, although the treatment has certainly produced already a considerable improvement in the health of these patients.

The causes of the comparative difficulty and slowness of a cure in this period are sufficiently evident, if we consider the indications which this stage affords; and to express them in a few and perhaps not inapposite words, I may say that they lie in the great duration which is characteristic of this stage. It is also to be considered that this period, or at least the medical treatment of this period, occurs mostly in young individuals, in whom not so much the phthisis itself and the pulmonary tubercles are to be removed as the disposition and tendency towards them, that primary and pervading malady the *tubercular dyscrasia*, which is the foundation of consumption. But this primary disease, which is still in full activity and increase, can only be gradually removed by means of a long-continued therapeutic as well as dietary treatment, during which we have chiefly to rely on the general bodily development.

The cure in the later stages is generally effected much easier and quicker. For, in the first place, these periods of the developing disease commonly occur at a time of life when the formation, or at least the deeper causes of the formation of tubercles have either ceased or diminished as to vigour; and, secondly, it is much easier to suppress or to render innocuous the tubercles already developed, and their local consequences, than to treat such as are still in a crude state, or to prevent the formation of new ones. Besides, the morbid phenomena, in the two latter stages, are much more intense, and a much greater and more immediate effect on the entire organisation is produced within these periods than during the first stage, which often remains unobserved by the patient, and neither has nor displays any considerable instantaneous influence on his general bodily feeling.

But it is in the last, third stage of consumption that this method of oily frictions operates in the quickest and most complete way; the main reason of which consists therein, that, under the supposition of otherwise equal and favourable circumstances, everything is then prepared for healing and cicatrisation: for the expulsion of the tuberculous matter having been effected, and the process of suppuration being in progress (of which nature generally makes use, as a means of reparation after the loss of substance, and as a cicatrising remedy), the compression which is effected by the extension of the air-cells, and the respective approachment, uniting, healing, and final cicatrisation of the parietes of the excavations, must be produced much easier, than the isolation, absorption, and healing of tubercles still crude, or only mollified, can be in the earlier stage by means of the same compression.

The cure, indeed, of the second and third stage cannot be rigorously considered as an absolute destruction of the phthisis itself, and of the tendency to it: yet these must sooner or later disappear, when their consequences have been removed or guarded against. When the immense purulent expectoration has totally ceased, and the cough nearly so, when hectic fever and colliquative symptoms have disappeared, and a return has taken place of the former strength, still there remain generally some isolated, small, crude tubercles which, under the action of some noxious influence, frequently become the cause of later little pneumonic affections, such as pains in the chest of various sort, bronchitis, and sometimes even sputa streaked with blood. To remove this sequela, and thus finally to arrive at a complete and lasting convalescence, it is necessary to employ a long and careful confirmatory cure, during which all that could be detrimental is, of course, to be avoided; and every mean is, at the same time, to be resorted to, that may tend to strengthen and exercise the lungs. If these precautionary measures are not strictly abided by, a recidivation may take place, which would necessarily require a repetition of the former treatment.

3. *Intensity.*—The intensity in phthisis, that is, the rapidity with which the disease runs through the several stages, offers a distinction of forms which, with regard to this method, points out some variety in the prognosis.

The *chronic* form, which sometimes lasts for years, presents the advantage of a long period for the treatment of the disease. There occur cases of this form, where the destruction of the lungs, the falling away, and the debility are so great, that they can scarcely be exceeded in the acute form, and where, nevertheless, the disease can be re-

moved by method; but, this over and above that, more or less unfavourable complications frequently meet in this form, the cure itself appears to have a slower progress. I except those cases where nature, by the creation of a chronic general catarrh in the lungs, and by the consequent enlargement of the air-vessels, has operated in a mode preparatory to my method.

A particular mention is due to that variety of this chronic form which not unfrequently occurs in older persons after the thirty-fifth year, and where an uncommonly quick and complete cure may be prognosticated. Such persons show no very marked natural disposition to consumption, had never before suffered pains in the chest, and some violent occasional causes, for instance, a pneumony, concurring and meeting with other interior or exterior circumstances, p. e., with repeated pregnancies, prejudicial occupations, dissipated habits, bad or scarce food, grief, and other violent passions, were necessary to excite and develop some tubercles that had been formed in youth, and remained in a latent state. As to the time of the origin of such tubercles two explanations may be given. They may have either been generated in youth; but being few in number, and inconsiderable, they could not cause any disturbance in an otherwise strong and healthy constitution; and this is the more probable supposition, for dissection often discovers tubercles in such persons in whom their presence was, for many years before, conjectured from their phthisical habitus, and sufficiently indicated by stethoscopic signs: or these tubercles have been forming in later years, shortly before the breaking out of the consumption, or before death. From both suppositions we may infer their small number, size, and increase; for, under the first hypothesis, they could not otherwise have remained latent for so long a time: nor does the other explanation allow their number and size to be large, because dyscrasia, which is the ultimate cause of their formation, is, in these advanced years, though not altogether extinguished, yet by no means so vigorous and violent as in the earlier period of life. It follows, that in this particular species of chronic consumption the disease will be radically removed, whenever the destructions which it has caused have been cured by this oil.

The other form is the *acute* one, also called the *galloping*, or, in England, the *florid* consumption. Although I have had no opportunity of applying my method in cases of this description, yet, if one presented itself, I should not hesitate to employ the animal fœtid oil after a previous, or with a simultaneous, use of such medicines and means as the special case might indicate: therefore, without venturing a positive assertion, *à priori*, on the efficacy of this method in this acute form, I may, nevertheless, express a confident hope that such an experiment would be crowned with the same success which I have repeatedly witnessed in rather rapid cases of *subacute* consumption.

4. *Complication.*—The complication of other maladies with consumption is a circumstance that frequently occurs, and possesses a much greater influence on the results of this method than the greater part of the various forms I have hitherto spoken of. It is very seldom that an accurate investigation during life, or after death, does not disclose other derangements and organic changes, than those commonly and immediately caused by the sole tuberculous affection of the lungs. To arrive during life at a just estimation and diagnostic knowledge of these accessory circumstances, is of the utmost consequence for a right prognostic, and for the choice of a fitting method of cure; for it is evident that the possibility of curing consumption, in a great degree, depends on the peculiar qualities of the constitution of the patient, and on those portions of his lungs that are not yet attacked by tuberculous affections. These complications, several of which often occur simultaneously, are as numerous as the variety of organs and their deviations from their healthy state. To submit them, one by one, to a regular survey, would exceed the limits even of an elaborate treatise, and far more those of the present, which in no respect professes to be complete; I shall, therefore, restrict myself to a communication of the general principles that have guided my judgment in such cases, and which I have elicited and collected from observations on the mode in which this new remedy operates: I propose afterwards to take a special review of a few of the most frequent of these complications which have occurred in my practice.

BEST SUBSTANCES FOR LIGATURES IN THE MOUTH.

To the Editor of THE LANCET.

SIR,—Probably you are acquainted with the silk used by most dentists, and which is sold in the shops as "dentists' silk." It is a strong twist of different degrees of thickness, and will bear the application of great force in the act of using it. The purposes to which it is applied by dentists are various; such as tying teeth when loosened from the action of mercurial medicines, or the absorption of the alveolar processes from chronic inflammation of the gums, or for tying in artificial bone teeth, or for removing any excrescence or fungous-like substances. I soon found that silk ligatures occasioned great fœtor in the mouth, being very easily acted upon; that a rapid decomposition was the result, which appeared to me to be owing to a putrefactive process common to all *animal* substances, particularly when such substances are saturated with moisture, and

placed under the influence of an elevated temperature. To obviate these consequences I tried various experiments with antiseptic lotions, but all the benefit I observed from their use was simply a partial removal of the fœtor, the putrefactive process still continued, and this was indicated by the increased bulk of the silk, and that state of imperfect cohesion of its particles, commonly designated rottenness.

I have, therefore, abandoned altogether the use of silken ligatures, and have substituted in its place strong hempen thread, the best kind being that which is *unbleached*, because the chlorine, used to whiten the thread, destroys its texture, and renders it rotten. Need I add, that my preference for hempen thread as ligatures arises from the fact, that there is less decomposition in it, as a vegetable substance, than there is in silk, although the hempen ligature has also its disadvantages. Lately, however, I have procured some New Zealand hempen thread in balls,* it is stronger than a silver wire of half the same thickness, and being stained with some vegetable dye, resists the decomposition better than any substance I have ever tried.

If you deem this information worthy of a place in the pages of THE LANCET, you will do me the favour to insert it. I am, Sir, yours respectfully,

J. L. LEVISON.

9, Colmore-row, Birmingham,
Oct. 4, 1841.

REJOINDER OF MR. BODINGTON TO "A LOOKER-ON."

To the Editor of THE LANCET.

SIR,—There is but little in the last communication of "A LOOKER-ON" in THE LANCET which requires remark from me, or which appertains much to the subject we have had in dispute.

Your readers will perceive that if some of the "licensed houses" are objectionable upon the ground of receiving too many inmates under one "management," that *that* objection acquires increased force when applied to the county asylums, where the numbers received are still larger, and that the testimony of Dr. Hitch is conclusive on the subject of maintaining the "private establishments;" for what, if "they are not to be permitted to exist," according to the imperial edict of "A LOOKER-ON," is to be done with that peculiar class and order of patients which, Dr. Hitch affirms, the county asylums are not fit to receive? The "LOOKER-ON" should adhere to his "propositions" and his "edict" promulgated in the style of a Chinese Mandarin, and carry these through if he has the power, and not turn and show his tail under pretence of breaking a lance with one who will not fight; the proprietors of the private asylums will not shrink from inquiry, but that inquiry must not be a one-sided one, but apply to all establishments equally, that a fair verdict may be obtained. In another respect, I am prone to believe the "LOOKER-ON" to be in reality a "Chinaman," a high Mandarin, inasmuch as he boasts that he has "tripped up my heels, and that I am bruised;" just in the spirit of "Yihsan," "imperial nephew and commissioner," who, in his report of the defence of Canton against the "British navy," declared to his celestial master, "that he had broke two of their guns, and smashed two great masts of the barbarians' ships;" yet his "bowels were torn asunder" when he "beheld with his own eyes" the lamentable state he had brought matters to, and the triumph of his enemies: but I go from this "wrestling and bruising" story of "A LOOKER-ON" to a much more grave charge he makes against me, which is, that I am "doing his work for him." No, no; I never have and never will debase myself by aiding or abetting any one in the foul and despicable "work" of slandering my fellow-men, under cover of an anonymous signature; and I utterly deny the truth of the statement of the "LOOKER-ON," that I have in the smallest degree aided him in the "work" he has been doing.

For this reason it was, and from my detestation of all cowardly conduct of that kind, that I have affixed my name to these "letters," being aware that I should be compelled to make statements respecting the management of some county asylums, for which I ought openly to stand accountable, in my defence of the "private establishments."

The last paragraph of the letter of the "LOOKER-ON," wherein he so manfully eats his own words, needs no further comments.

One word as to his postscript. The "LOOKER-ON" says, "Mr. Hitch is very severe upon him, and seems to hold him in *great contempt:*" and yet immediately afterwords adds, he *hopes yet to award to him the "civic crown."*

"Fair Sir, you spat on me on Saturday last; you spurned me such a day; another time you call'd me — dog; and for these courtesies I'll lend you thus much monies."

With many thanks to you, Mr. Editor, for your liberality, I beg to subscribe myself, yours truly,

G. BODINGTON.

Monday, October 11, 1841.

THE HULL ASYLUM.—THE MORAL TREATMENT OF INSANITY.

To the Editor of THE LANCET.

SIR,—A prospectus of an establishment called "The Hull and East Riding Refuge," having accidentally fallen into my hands, I

* The thread may be obtained at any of the wholesale druggists.

trouble you with a few remarks respecting it. I have not seen the asylum; I know nothing, and have heard nothing of its management, but I have no reason to doubt the correctness of its statements. It professes to adopt the moral system of treatment, and there is appended to the foot of the prospectus the minutes of the visiting magistrates, at their visits in the months of May, August, and December, 1840, and April, 1841, from which it appears that the number of patients averaged *ninety-three*; that at the two first visits *no patients were under restraint*, and at the two last "*one only required to be under personal restraint, and that one only occasionally.*" It appears also from the same certificates, that "great alterations and improvements have taken place in the house and grounds, adding to the convenience of the premises and comfort of the patients, *and enabling the proprietors to carry out more fully their* PRESENT *humane system of treatment.*" There is food for deep reflection and cause for much rejoicing in these certificates and this prospectus. They are signs of the times: a large private establishment is now founding its claims to public patronage on the principle of the abolition of restraint, adapting its premises to its improved system, and proving that it may be carried out in an institution containing nearly *one hundred* lunatics (for I will allow no weight to the solitary exception named in the December report), with diminished anxiety to the superintendents and increased comforts to the patients. In proof of this position, I trust you will find space for the following extracts from the prospectus. How beautifully true is that passage which speaks of the moral system as "curative to the curable, and comforting, consoling, and assuasive to those who are beyond the reach of effectual aid;" but those only who practically know the habits of the insane, their keen sensibility and affectionate gratitude, their capabilities under gentle treatment of comfort and enjoyment, can thoroughly understand its truth and beauty.

"To sustain the drooping faculties, to rectify the disordered judgment, and to impart tranquillity when restoration may not be attainable, are the objects contemplated by the proprietors of the Hull and East Riding Refuge. In accordance with these objects, their method of treatment will be found to embrace all the improvements recently introduced in England, and in continental Europe and America, so far as they have harmonised with opinions the result of a devotion of upwards of twenty years to the practical study of mental diseases. One plan of treatment —*tested in a few institutions in this country for a sufficient term to secure for it the approval of the wise and benevolent, and their wish for its general adoption*—has been tried in this institution to such an extent, and with such encouraging consequences, as to warrant its being carried out to the utmost practicable limit consistently with the exercise of due care and precaution. This plan, which is simply the allowance, under proper superintendence, of a larger share of liberty than has been heretofore deemed compatible with the safety of the patient and general security, has had a number of antagonists to contend against. Opposed to it, on the one hand, have been the fears of the timid, and, on the other, the misconceptions of the ignorant, both of which classes are disposed to regard the subjects of disordered brain as creatures altogether bereft of reasoning powers, like animals that never have possessed them, rather than as examples of moral and intellectual aberration and waywardness, capable of being brought back to habits of reason and order by a system of humane regulation and judicious government." * * * * * *

"Individuals who have visited similar institutions in the United Kingdom have noticed the patients in the Hull and East Riding Refuge as more quiet, orderly, and controllable than any they had previously seen. This gratifying fact the proprietors attribute only to the adoption of a system of treatment based upon and under the direction of the better and higher feelings—which is curative to the curable, and comforting, consoling, and assuasive to those who are beyond the reach of effectual aid. For the latter the institution offers that watchful care and indulgent sympathy which a home can seldom afford, without subjecting friends to the dangers and afflictions so often attendant upon morbid intellect." I am, Sir, your obedient servant,

A LOOKER-ON.

October 12, 1841.

MIDDLESEX HOSPITAL.

POISONING WITH LAUDANUM.—RECOVERY FROM ITS EFFECTS.

To the Editor of THE LANCET.

SIR,—Wm. Cutler, a tailor, ætat. 42, was brought to the Middlesex Hospital, Sept. 11th, at eleven, p.m. He was said to have taken a poisonous dose of laudanum more than five hours previously. At the time of his admission he presented the ordinary symptoms of narcotism in their most aggravated form. He was totally insensible, and to an ordinary observer lifeless. The surface of his body was cold, his countenance pale and livid, his lips purple, and the pupils contracted to a mere point, and of course insensible to the action of light. Respiration was very imperfectly carried on, being scarcely perceptible, and occasionally slightly stertorous. The pulse, which could hardly be felt, was extremely small and irregular. The stomach-pump was immediately employed, and the fluid withdrawn was of a dark colour, and smelt strongly of laudanum.

The use of the stomach-pump was continued until the smell of laudanum could no longer be detected in the fluid. All attempts to rouse him were ineffectual, and in spite of every exertion his pulse became more infrequent, and was at times imperceptible; his case appeared hopeless,

At half-past one I proposed the employment of electro-magnetism, and soon applied it by means of a small battery, with coil and contact-breaker, which gave a succession of very powerful shocks. One wire was applied to the side of the neck, and the other to the region of the heart or to the epigastrium. Its good effects became very soon apparent. The intercostal muscles, before almost motionless, began to act, and the diaphragm contracted powerfully. The chest was thus more fully expanded; respiration was more perfectly carried on, and a corresponding improvement was observable in the countenance. The pulse somewhat fuller, and more powerful; the surface, however, remained nearly as cold as at first, and he continued in the same state of profound coma, and did not manifest the least sign of consciousness.

I observed that whilst the action of the battery was kept up, the pulse, although stronger, was somewhat fluttering, but became steady if the current was for a few minutes interrupted. When it was discontinued for a longer period the pulse became gradually weaker, and he seemed to relapse into his former state; but the reapplication of the wires was uniformly attended by improvement.

The effects of the galvanism appeared most powerful when one wire was applied to the side of the neck, and the other to the epigastrium, and were stronger when the wire was placed on the left side of the neck than when it was applied to the right.

The application of galvanism was continued, with occasional intermissions, until six, a.m., of the 14th, a period of five hours and a half. During the intervals artificial respiration was tried for a short time, but the lungs did not appear to be nearly so well filled by this means, as by the more natural motions of the chest, which took place when the muscles concerned in respiration were stimulated by galvanism. Electricity was also employed, both in the form of sparks and in shocks; but its effects appeared very slight and transitory, compared with those produced by the electro-magnetic apparatus. A turpentine enema was also exhibited; ammonia was applied to his nostrils, and some strong tea and ammonia injected into his stomach by means of the stomach-pump, but on account of violent spasm of the œsophagus, which so often occurs in these cases, the passage of the tube was very difficult, and took so much time that it was not repeated.

It was not until six, a.m., of the 14th, that he showed the least signs of returning animation, when, for the first time, he just opened his eyes and drew up his arms. The surface of the body was now tolerably warm, and the pupils became somewhat less contracted. When pinched he seemed to feel slightly, and when called loudly by name he looked up. With great difficulty I got him to drink some tea. This state of restored consciousness was, however, very imperfect, and he speedily relapsed into a state of lethargy, whenever shaking and other means of arousing him were discontinued. He did not become really sensible of what was going on around him until after nine, a.m.; and even then, there was some difficulty in keeping him awake. He complained of headach; and it was not until after several hours had elapsed that he was able to empty his bladder, although he had made several attempts; the urine was very high-coloured. A good purge was given him, and in the afternoon he slept for some time, and awoke much refreshed.

20. Says he is tolerably well, but is very pale and exceedingly weak, and has some headach.

He states that he took upwards of an ounce of laudanum in two doses. He purchased it in small quantities, which he added together, until he had got half an ounce; this he took about four o'clock in the afternoon. He then procured as much more, and took it with a little gin, about a quarter of an hour after the first dose. He has no recollection of anything that occurred after that time until he found himself in bed at the hospital, at nine o'clock the following morning. It is evident, therefore, that he must have taken the laudanum more than *six* hours before he was brought to the hospital; more than *thirteen* hours before he manifested the least sign of returning consciousness; and upwards of *fifteen* hours before he became really sensible and conscious of what was going on around him.

This case, I think, fairly proves, first, the truth of the proposition laid down by Mr. Whately, and more recently by Sir B. Brodie —that by continuing the respiration artificially in animals labouring under the influence of narcotic poisons, the heart may be kept in action until the stupefying but transitory effects of the poison upon the brain have gone off; and, secondly, that respiration may be kept up as effectually by stimulating the respiratory muscles by means of galvanism as by artificial inflation of the lungs. My conviction of this is strengthened by the success with which I employed galvanism about a year ago, in the case of a still-born infant, when the ordinary means of resuscitation had failed. I apprehend that it is mainly by its action on the respiratory muscles, stimulating them to act and alternately expand and contract the thorax, that galvanism is useful in these cases, although it is more than probable that it has a very considerable influence upon the heart itself.

I am induced to record this case, not as any novelty (for, I believe, the use of galvanism and electricity was long ago proposed in cases of narcotic poisoning), but simply because I am not aware that any instance has, as yet, been published in which their efficacy has been so satisfactorily established.

The above case occurred during my house-surgeoncy in the hospital.

HENRY HENSLEY.

WESTMINSTER HOSPITAL.

CHIMNEY-SWEEPERS' CANCER.—EXCISION.

(Communicated by Mr. WELSH.)

W. PEGG, a short, healthy-looking man, was admitted under Mr. White two years ago, with a cancer of the scrotum. He stated that about ten years since, while following his employment as a chimney-sweep, he perceived a small pimple, or wart, on the outer side of the scrotum on the right side. This continued to increase for some time, and gradually put on the appearance of fungoid ulceration. Not knowing what to do, he thought no harm could arise from snipping it off with a pair of scissors, which he accordingly did. A short time afterwards, however, the disease returned with renewed vigour, and went on gradually increasing until the time of his admission, when it presented the following appearances:—The whole of the scrotum presented one granular cauliflower excrescence, hard to the touch, and emitting a stinking grumous kind of pus, unaccompanied with any severe pain; countenance anxious; health but slightly impaired.

Mr. White immediately proposed excision of the whole mass. This was acceded to, and the operation was performed on the following Saturday. Upon dissecting the diseased part from above downwards, it was found that the testicles were not at all implicated, consequently Mr. White did not interfere with them, but left them perfectly exposed and hanging by their cords. He remarked to the students that they would very soon see the admirable arrangement of nature in covering these glands, a remark which was verified in a few days, the whole surface becoming covered with healthy granulations. The patient gradually increased in health, and after a few weeks left the hospital to all appearance quite well.

In about four months from the time of his discharge, having followed his usual employment during that period, he perceived a small wart commencing again in almost the same situation as before, which gradually increased, and at the end of two years he again presented himself with the disease in exactly the same state as before, with the exception that it was accompanied with the most excruciating pain, extending down the thighs, which entirely prevented him from getting any sleep. He this time came under the care of Mr. Lynn, who at once decided on the same operation as Mr. White had previously performed, and it was accordingly done on the following Saturday, that being the regular operating day of the hospital.

The testicles on this occasion, as on the last, were found not to be implicated; they were, therefore, again left, and the same result took place. The scrotum is now almost entirely covered. Mr. Lynn taking the precaution, upon the least appearance of fungoid granulations, to immediately cauterise them with the potassa fusa. The part, of course, puts on a very curious appearance as the testicles are situated on either side, as it were, in the inguinal canal, there being no scrotum left.

KING'S COLLEGE HOSPITAL.

LARGE STRANGULATED CRURAL HERNIA.—OPERATION.—DEATH.—CLINICAL REMARKS BY MR. FERGUSSON.

ANN BARLOW, aged 60, a washerwoman, was admitted at seven, a.m., on the 26th of September, 1841, with a very large crural hernia of the left side, which passed four or five inches down the thigh, and extended in an oblique direction, from within two inches of the anterior superior spinous process of the ilium to the inner margin of the limb, resembling in shape a large cocoa-nut.

The patient stated that the disease had existed for sixteen years; that it was frequently down, but easily returned again; and that the previous evening, when her present distress began, was the first occasion on which she had found it impossible to relieve herself, the swelling having suddenly appeared of a larger size than at any previous time. During the night she had suffered much pain, both in the swelling and in the abdomen; had had slight evacuation from the bowels, repeated vomiting, and great prostration of strength. She had been the subject of ascites for many years, and had been several times tapped.

She was immediately placed in a warm bath, and every reasonable attempt was made to reduce the hernia, but to no purpose.

On the arrival of Mr. Fergusson, under whose care she was, at half-past nine, a.m., he found her in a state of great collapse, praying anxiously for relief by any means. Another prolonged attempt at reduction was made by the taxis, but with no perceptible change in the tumour. Mr. Fergusson stated his reluctance to perform any operation, as from the great size of the swelling, as well as the previous diseased condition of the patient's peritoneum, he could not anticipate any favourable result; yet, as the

symptoms were so urgent, as after the failure of a careful attempt on his part to reduce the contents of the sac, and as any further proceedings of the same kind would in his opinion be more likely to add to the danger of her situation than to afford relief, he deemed it his duty to resort to the operation without delay.

Being anxious to make as small a wound as circumstances would permit, a single perpendicular incision was made, about three inches in length, from a little above Poupart's ligament, towards the most prominent part of the tumour, in a line with the crural canal. The coverings being very thin, a few incisions sufficed to expose the sac, which was opened to such an extent as to allow the point of the forefinger of the left hand being placed upon the seat of stricture, which was found to be at the neck of the sac.

Six or eight ounces of fluid escaped when the sac was opened, and a portion of small intestine, which Mr. Fergusson estimated at more than a yard in length, of a dark-brown colour, with the blood-vessels highly engorged, and the peritoneal surface in a state of inflammation, was exposed. There seemed to be considerable difficulty in dividing the stricture, as it was not until after repeated attempts with the point of Cooper's hernia bistoury that an opening was made sufficiently large to allow the bowels to be returned. This part of the proceeding was also attended with much trouble, as no sooner was one portion of the bowel reduced than another protruded. At last, however, reduction was completely effected, and after a couple of stitches were placed in the wound, the parts were covered with graduated compresses and a flannel roller.

Mr. Fergusson remarked, that though he had frequently operated on inguinal herniæ of a size equal to this case, he had never before operated on such a large crural hernia; nor had he seen the operation performed by others in any instance of the like magnitude. He had had more than the usual difficulty of dividing the stricture, partly in consequence of its tightness, but chiefly from its depth, as from the large portion of protruded intestine projecting among and over his fingers, he could not readily place the bistoury nearly parallel with the thigh, so that its point could be easily insinuated within the neck of the sac; neither could he, for the same reason, put its edge upon Gimbernat's ligament, which he was usually in the habit of dividing in such cases, and that he had, therefore, taken what he considered the next best point for division, viz., the inner extremity of Poupart's ligament. He had also found that a very slight enlargement of the neck of the sac had not enabled him to effect the reduction, and he had, therefore, been obliged to repeat the use of the knife, and had actually taken a greater liberty in this respect than he would have hazarded on the male subject.

The patient, when carried to bed, expressed herself greatly relieved, and in a few hours all the symptoms of collapse had gone off, her skin was moist and comfortably warm, and her pulse had risen to a natural state. The bowels had been twice slightly moved, and each evacuation consisted chiefly of blood. In the afternoon there was great tenderness over the abdomen. Twenty leeches were ordered; cloths wrung out of warm water were assiduously applied; and calomel and opium were administered in small and frequently-repeated doses. Next day her pulse was hard and quick; the abdomen intensely painful; features sunken, and her whole condition indicated great distress. Her bowels having not yet produced a feculent discharge of sufficient quantity, the bandage and compresses were removed, and a small portion of gut was ascertained to be in the sac: there was no stricture upon it, however, as the slightest touch with the fingers caused it to recede. In the after part of the day the bowels were freely evacuated, the discharge being less of a bloody character than previously; her system, however, weakened by long-continued disease, seemed unable to bear up against her present ailments, and she gradually sunk, notwithstanding the free use of stimuli, and died on the morning of Tuesday, the 28th of September, about forty-one hours after the operation.

When the abdomen was opened, many ounces of thick, sero-purulent matter were removed, and as much more seemed to have escaped from the wound. The entire surface of the peritoneum bore traces of acute inflammation, and on many parts recent lymph had been effused. The liver was adherent to the diaphragm throughout the whole of its anterior surface: the effects of a former disease. A small band of adhesion existed between a portion of the small intestine and the peritoneum, opposite the linea alba and a little below the umbilicus, where tapping had been done. All that portion of the intestine, the ileum, which had been in the sac, was of a chocolate colour; its tunics felt thicker than elsewhere, and bore more distinct marks of inflammation. The mucous membrane was highly vascular, and covered on many parts with recently-effused lymph. On actual measurement this portion of gut was found to be, within a few inches, of two yards in length. The interior of the sac was not so much inflamed as the peritoneum within the abdomen; the incision in its neck was very free, and Poupart's ligament close to the pubes and the round ligament also were divided in a direction upwards and inwards.

In his observations on this case, Mr. Fergusson remarked, that among many operations he had seen performed for crural hernia

and done himself, he had never seen one of this great size treated by operation. On one occasion he had been called in to use the knife in a case of somewhat similar bulk, but had been so fortunate as to succeed in its reduction by taxis. In this instance, however, he not succeeded so happily; and though his ideas of the danger of the operation in such a case as this had made him most averse to resort to incision, he deemed it his duty to have the chances of his patient's safety more at heart than the selection of a case which by an almost certain promise of success, might therefore, in every likelihood, redound to the credit of the operator. He had entertained no hope for this patient by delaying the operation, and the state of the parts at the time of its performance sufficiently evinced the necessity for its immediately taking place, as gangrene must have been the inevitable result, ere many hours had elapsed. It was not customary to operate so very soon after strangulation, but he remembered one instance in which he had operated at noon, when strangulation had only come on at four o'clock the same morning; and in this case gangrene and death were the result, within twenty-four hours after the operation. Inflammation of the peritoneum he believed to be the most frequent cause of death after this operation, and he considered it almost impossible to state with certainty the cases wherein it was likely to occur or not. He had often himself been deceived in his predictions, sometimes most agreeably, and he had seen others of greater experience also wrong in their anticipations. He felt confident, however, that the rule of practice was a good one, which inculcated the propriety of an early operation; before the parts got so much injured by repeated manipulations, and the system so much depressed by long-continued suffering, that the operation became, as it were, a kind of last flickering hope of safety, and not, as it should be, a reasonable and scientific surgical operation.

Perhaps one of the most important circumstances connected with the operation, was the injury done by the incision; the round ligament as well as that of Poupart had been cut. He believed that these parts were in closer contact, in this and other similar cases, than in the natural state of the parts, Poupart's ligament being thrust forward and upward by the great bulk of the parts immediately within the neck of the sac, and consequently into immediate contact with the cord. He did not suppose that this injury would have produced any serious consequences, but in a male subject such an occurrence would have been attended with severe effects, both immediate and permanent—supposing the patient to have recovered—and would have been highly discreditable to good surgery. He could not attach blame to himself for the size of the wound in the neck of the sac in this case, for even with that which he had made, those who witnessed the operation would have perceived the difficulty with which the bowels were returned, and he did not consider himself less able to do this step of the operation than any other, though all who had much experience in operations for hernia must have occasionally felt and witnessed the like annoyance.

The bleeding which had occurred in the shape of bloody evacuations, he attributed to the squeezing of the intestine during the reduction, as the mucous membrane must, doubtless, at that time, have been highly vascular, and its vessels susceptible of being injured by very slight force; even slighter than that which had been used in this case.

AMALGAM FOR STOPPING TEETH.

To the Editor of THE LANCET.

SIR,—I send the following answers to the questions in Mr. Lintott's paper on the "Mineral Succedaneum," in THE LANCET of Sept. 18:—

1. The hardening of the mass is owing to the combination of the mercury with the silver taking place slowly. At first the mass is soft, for the particles of silver are as yet merely *coated* with liquid mercury, forming a mass similar to that which would be produced by moistening any insoluble powder with water; but in a little while the mercury penetrates the silver, and forms with it an amalgam, having a crystalline structure, but still containing some fluid amalgam, and also some uncombined silver; for if its structure be broken up, and the mass kneaded, as it were, together (after it has hardened), it will again become in some degree soft, and will again harden if left to crystallise.

2. The chemical change is merely the transition of the mixture of solid silver and fluid mercury into an amalgam, possessing a considerable degree of hardness.

3. This change is produced by the oxidation of the surface of the mass, where the moisture, air, &c., come into contact with it.

About twelve months ago I filled for myself a molar tooth with some of this compound; the piece weighed about one scruple (for I find that a ball having the diameter of one-seventh of an inch has this weight, and this was of about the size of the portion of amalgam that I used). It remained in the tooth about nine months; the tooth broke at the end of that period, and the "stopping" was only slightly discoloured at those parts where it had been exposed to the air, &c. During that time I experienced no inconvenience from the mercury, nor have I ever heard of any one having done so. I am, Sir, your obedient servant,

CHEMICUS.

Sept. 27, 1841.

THE LANCET.

London, Saturday, October 16, 1841.

THE case of the APOTHECARIES' COMPANY *versus* GREENOUGH has produced a very strong sensation amongst chemists and druggists in all parts of the kingdom. The number of communications which we have received on the subject is extraordinary, and, from the observations of our correspondents, and from the questions that have been proposed to us, we are now tolerably well apprised of the extent, in this country, of what has been aptly denominated "COUNTER-PRACTICE." We had previously considered the evil to be of enormous magnitude, but it is quite clear that we had under-estimated the extent of the danger to which the public are exposed, and we are more than ever confirmed in the opinion that it has been attended with a dreadful sacrifice of human life. The universality of the system justifies this opinion. It is, we find, of general application throughout the nation, and, if we are to believe the statements of our correspondents, there is not a chemist and druggist in the empire who would refuse to prescribe in his own shop in medical cases, or who would hesitate, day by day, to prescribe simple remedies for the ailments of infants and children.

The chemists and druggists, therefore, may be understood to have their thousands and tens of thousands of patients, daily; and we will at once acquit them of the charge of destroying the life, even of one, of that vast number, by an overdose of medicine, or of trying one wanton, reckless experiment; but we put it to their own common sense, to that of our readers, and to the common sense of the public, What must be the result of not detecting the real nature of a malady, so soon as its pernicious effects are demonstrated by the indisposition of the patient? DEATH! DEATH! in thousands of cases. If it be otherwise, of what use is the study of the science of medicine? Why should students risk their lives in the pestiferous atmosphere of the dissecting-room? Why trace the morbid characters of structure in the dead-house? Why investigate with unwearied patience and assiduity the symptoms of malignant and contagious diseases at the bedside of the afflicted during a long series of years, if persons who have made *none* of those researches and inquiries are competent, by some intuitive power, to discover the characters of disease, and apply the appropriate remedies? Why, we ask, should the circumstances which are justly applicable to society in all the usual relations of life, be inappropriate when they are brought to bear upon the treatment of *the sick*, and the practice of *medicine?* In all other trades and professions we hear the common-sense remark, "Let every man attend to his own calling." A *carpenter* is not consulted on questions of *hosiery* and *haberdashery*. The advice of an *ironmonger* is not desired relative to the texture and qualities of *silk*. No demand is made upon an *attorney* for information connected with questions of *theology*. A *sweep* is likely to have but a sorry knowledge of the manufacture of *confectionery;* and a first-rate *mathematician* might but ill execute the useful business of the gentleman of the *chimney*. With all tradesmen, in fact, it appears to be a principle to attend only to what *is* and *can* be understood by the trader, with the single exception of the seller of *drugs*, who, stepping beyond the legitimate business of his occupation, plunges, at one step, into the very centre of the entire province of medical science! That he is *invited* to take this unwise step, we admit, but that constitutes no justification for the proceeding. That he may intend to do no harm; that he may even desire to prove of service, is an insufficient ground of action when pain and death may be the inevitable consequences of only a slight error of judgment. In this respect the absence of an ordinary degree of sagacity on the part of the public, and the rashness of the chemist and druggist, are nearly akin. The one is really as inexcusable as the other.

Let us take the case of a man having on

his table a watch which needs repair, and in his cradle a child which is afflicted with some internal malady. The watch is of little value. He esteems it but slightly. The life of his offspring he values as highly as his own. He grieves bitterly over the painful cries of the infant sufferer. In an agony of distress he leaves his home, having the watch in his pocket and the child in his arms. For the relief of the afflicted object of his affections he proceeds to the shop of a chemist and druggist. The tale of sorrow is related. The symptoms, such as have been witnessed by an untutored eye, are described. With becoming gravity the pulse is felt, the head, mouth, and skin are inspected, and medicines are prepared for the little patient, accompanied with copious directions. The anxiety of the parent is appeased, and he leaves the shop under a consciousness that, come what may, he has discharged his duty as an affectionate father. The chemist and druggist who has thus taken upon himself the office of a physician, being imbued, probably, with no inconsiderable share of the same amiable feeling. He has done his best for the interesting sufferer, and made a moderate charge. Others might have done less, but who could do more? Returning to his home the parent does not forget the *other* piece of deranged machinery which he carries about with him, and he travels through several long streets before he finds the watchmaker whose reputation has secured his confidence. There were many of that trade in the street where the druggist lived. But all the physic-shops contained similar colours in the windows. Hence the first of them which was discovered he deemed to contain the materials and means of relief. At length the watch is deposited in the hands of the skilful mechanist. He examines it, detects that there is something wrong, and will endeavour to set all right; but finds that the disordered works require a more minute view than he has then time to bestow upon them. The owner is contented, and departs. In the latter case circumspection is exhibited by both parties. The owner of the watch applies in the proper quarter. The artisan to whom the application is made undertakes no duty which he is not competent to perform. He believes himself to be qualified for the execution of the task which is imposed upon him, and does not consider that the property of the customer will sustain damage at his hands, owing to ignorance or incompetency. The future well-going of the watch he is resolved shall not be endangered by his want of skill. He has served an apprenticeship to his trade, and is thoroughly acquainted with the business of watchmaking-and-mending. But why, after the parent had laid the case of his child before the chemist, and submitted the ill-acting machinery of his infant offspring to the druggist,—why did not he then hand the ill-going time-teller to the same functionary, and request that the defective apparatus might be put into good order by the prescriber for his child? Had he done so, what would have been the answer? "Are you mad? What "induced you to think that I was a watch-"maker, or that I knew any thing of the "works of such instruments? Oh, no. I "should be doing you a great injustice if I "were to attempt to repair it. I might stop "its movements entirely; you might never "hear it tick again."

If these admissions proved the existence of candour and honesty in the case of the watch, would they have proved less candid and honest in the case of the child? Certainly not; and if justice demanded that they should be made and acted upon in the one case, where only the value of a few shillings was involved, assuredly they were a thousand times more requisite in the other, where human feeling, human happiness, and human life, were all hazarded by the temporising expedients of officious and presumptuous ignorance. When chemists and druggists who are extensively occupied with COUNTER-PRACTICE, reflect upon what may possibly be the consequences of their engaging in duties which they are not competent to discharge, we really believe that hundreds of them will be inclined to relinquish pursuits which can bring with them no advantage excepting

pecuniary profit, the *source of gain* being at the same time of so questionable a character as to afford but little satisfaction to any honourable mind.

But whatever may be the determination of druggists in this respect, it is now evident that the most stringent severities of the law may be made applicable to them if they emerge from the legitimate boundary of their calling, and exercise the proper and ordinary functions of apothecaries. From the language of the judges of the Court of QUEEN'S Bench, it is now evident that the provisions of the 55th GEO. III. will be held to be amply sufficient to restrain unlicensed persons from practising as apothecaries in England and Wales, the highest legal authorities having resolved, it appears, not to be influenced in their decisions by what was the *intention* of Parliament in enacting the above statute, but by the *unquestionable words of the law itself*. We have already stated it to be our belief, that Parliament did not intend to interfere with chemists and druggists by the Act of 1815. It is quite evident that the COMPANY OF APOTHECARIES, and the legal advisers of that body, entertained a similar opinion, and had done so for a long period of time; because twenty-five years were permitted to elapse without the Company making a single effort to put down the COUNTER-PRACTICE which had been carried on to so profuse an extent in the shops of that class of tradesmen. The judges have now held that the Act extends its protection to chemists and druggists, regarding their TRADE or BUSINESS ONLY, and have plainly proved that they do not consider the practice of medicine to constitute even a fractional portion of that trade or business. We here invite the gravest attention of the trade to the *words* and *bearings* of the 28th clause of the Act, and at the same time inquire of all the respectable chemists and druggists in the kingdom whether they consider, after what has lately transpired, that that clause affords to them the slightest shield or protection if they undertake, *even in their own shops*, to perform the duties which properly belong to the profession of AN APOTHECARY:—

"28. Provided always, and be it further enacted, that nothing in this Act contained shall extend, or be construed to extend, to prejudice or in any way to affect *the trade or business of a chemist and druggist, in the buying, preparing, compounding, dispensing, and vending drugs, medicines, and medicinable compounds, wholesale and retail;* but all persons using or exercising the said *trade* or *business*, or who shall or may hereafter use or exercise the same, shall and may use, exercise, and carry on the same *trade* or *business* in such manner, and as fully and amply to all intents and purposes, as the same *trade* or *business* was used, exercised, or carried on by chemists and druggists before the passing of this Act."

BRITISH MEDICAL ASSOCIATION.

Exeter Hall, October 12, 1841.

Dr. WEBSTER in the chair.

THE minutes of the last meeting were read and confirmed.*

A communication was read from R. Innerarity, Esq. (Baldock, Herts), on the state of the profession, and on the subject of parochial medical relief.

A very interesting document on the amount of duty paid to Government for patent medicines, was laid on the table.

Final arrangements having been made for the anniversary meeting (see advertisement on the cover), the meeting adjourned.

MEDICAL SOCIETY OF LONDON.

Monday, October 11, 1841.

Dr. CLUTTERBUCK, President.

DELIRIUM CUM TREMORE.

THE discussion this evening again had its origin in Dr. Clutterbuck's paper. The question in debate was the mode of treating delirium with trembling. Was it to be treated as an inflammatory disease or not? It would be useless and profitless to give in detail the opinions expressed by members on this frequently-agitated point, this "twice-told tale." The results arrived at may be thus briefly summed up. The drunkard's delirium might be the result of long-continued stimulation in a nervous debilitated habit; and then the state of the pulse, the general

* The name of J. R. Lynch, Esq., M.D., was inadvertently omitted from the advertised list of members eligible to be on the council for the ensuing twelve months.

depression, and other symptoms of debility, would indicate the necessity for the use of opium. These were the cases, generally, in which blood-letting was not only prohibited, but might be destructive of life. When the disease occurred, however, in a robust habit, and was the result of an accidental deviation from temperance, then the bounding full pulse, the hot skin, and other febrile symptoms, indicated the necessity of abstracting blood in greater or smaller quantity, to be regulated by the judgment of the practitioner in each particular case. These might be called the general principles of treatment; but exceptions to both rules would occur, and would be treated accordingly.

With regard to the use of opium a case was referred to in which a large dose of morphia, above four grains, given at once, appeared to have terminated the case by death. Another instance was related of a child, five years of age, who having been in the habit of fetching gin from the public-house for her mother, constantly partook of some of it on her errand. In this case all the symptoms of delirium with tremor were manifest; there was trembling, great agitation, and sleeplessness, with spectral illusions of the presence of mice, rats, &c. In this case, however, there was a circumscribed swelling, attended with pain, in the course of the spinal cord.

Several speakers pointed out the unsafe state of the patient, who had been once the subject of delirium tremens. Not only was he, after the attack, unable to bear any mental excitement as he had formerly done, but the state of his system was such, that he had less chance of recovery if attacked by any other disease.

UNIVERSITY COLLEGE MEDICAL SOCIETY.

Friday, October 8, 1841.

Dr. Quain, President.

The first meeting of the society for the session was held this evening. The President gave an address in which he adverted to the history of the society, comparing its small beginnings with the important position it now occupies amongst the students of the college, and many practitioners. The library of the society, he stated, consisted of upwards of 1000 volumes, and the museum contained a large collection of osteological preparations, and an extensive herbarium. Several presents of books and preparations were announced.

Mr. Thompson read a paper on medical education, the discussion on which will take place this evening (Friday).

INJURIOUS EFFECTS OF IODIDE OF POTASSIUM IN SMALL AND LARGE DOSES.

Mr. Erichsen related a case of chronic rheumatism, in which he had administered five grains of iodide of potassium in two doses, when alarming symptoms came on. There was difficulty of breathing, pain in the chest, excessive discharge from the eyes and nostrils, inflamed conjunctivæ, and most of the symptoms of violent catarrh. The iodide was discontinued, and the patient speedily recovered. He thought the case remarkable on account of the small doses of the iodide that had been given, and the rapidity with which the patient recovered when the medicine was left off.

Mr. Hardwicke had seen even smaller doses than those mentioned by Mr. Erichsen produce the same effects. He thought that these symptoms came on in a peculiar state of the system at the time, and were not the result of a particular idiosyncrasy.

Mr. Bucknill had also seen the effects spoken of from the use of the iodide. It was remarkable that when doses of a scruple or half a drachm were given, the bad effects, when they did take place, were by no means increased in proportion to the dose.

Dr. Lankester had always witnessed the severest effects from large doses. Inflammation of the eyes, erythematous eruptions, and faintings, attended with oppression at the epigastrium, were the most prominent symptoms. These effects yielded quickly to abstinence from the medicine. He did not think large doses increased the absorbent effect of the medicine.

Mr. Hardwicke doubted if the iodide possessed any influence over the absorbent system.

Mr. Taylor related a case of Mr. Liston's, in which wasting of the testicle took place under the use of iodide of potassium.

Mr. Hardwicke related a case of retraction of the testicle into the inguinal canal, in the adult, which had hitherto resisted all attempts at reducing it to its natural position.

Mr. Erichsen had seen a case in Paris. The man came into the hospital under Velpeau, with orchitis of the retracted testicle; it was treated in the ordinary manner, and the man got well, but the testicle remained in the canal. It had not at all interfered with the function of reproduction.

SOLUTION OF STONE IN THE BLADDER,

BY ALKALINE MEDICINES, ESPECIALLY THE BICARBONATE OF SODA.

1. M. Fournier had a voluminous stone in his bladder, with a rough surface. He was sounded by M. Leroy D'Etiolles, on the 9th of August, 1838, and the stone was declared to be of the size of a large walnut. Under the use of the Vichy waters all the symptoms of stone were gradually mitigated; large quantities of gravelly masses were passed. The patient was again sounded by M. Leroy, who declared the stone had de-

creased in size. After this the patient continued the use of the alkaline medicine at home for some little time; but suffering nothing, he gave up his medicine, and had apparently no remains of stone in the bladder. He enjoyed uninterrupted health for more than a year. In the month of October last he was seized with a fever and died: on opening the body after death, the long-shaped nucleus of a stone, the size of a shelled almond, was discovered.

2. Dennis B. Jacob, having a considerable stone in his bladder, came under the care of Dr. Petit, at Vichy, in the season of 1839. The patient was refractory, and did not follow the treatment regularly. Remanded in 1840: his stone was previously seized in various directions by Civiale, Blandin, and Berard, and ascertained to be of the diameter of 13, 14, and 15 lines. The treatment by the Vichy waters began on the 23rd of June, 1840, was pursued with great regularity to the middle of September, the patient taking from twelve to twenty-five glasses of the water and a bath daily, and in addition having a stream of the water sent through his bladder by means of a double-current catheter, once, twice, and even thrice a-day, for some considerable time. In the beginning of August the patient began passing fragments of stone, and at the same time obtained relief from his sufferings. On the 18th of September the man was sent back to Paris, and having been sounded on two several occasions by the members of the committee, it was formally declared there was no longer any more stone in the bladder.—*Dr. Petit, in Brit. and For. Rev.*

(Each glass of the Vichy water contains fifteen grains of the bicarbonate of soda.)

CASE OF RUPTURED UTERUS.

ESCAPE OF THE FŒTUS INTO THE ABDOMINAL CAVITY.

M. Zeczek, a peasant woman, of Swatsberzitz, in Moravia, aged 20, in the ninth month of her pregnancy (April, 1840), had a sudden attack of vertigo whilst passing over a bridge, and she fainted for a long time. On coming to herself she complained of violent pains in the lower belly, which appeared to her to be larger than before. She felt very strong movements of the fœtus: these continued for twenty-four hours, and then ceased entirely. The pains in the hypogastrium extended to the hypochondria and præcordia, and continued intense for four weeks; they were then concentrated in the uterus. The fever became less, and the patient could occasionally rise.

On the 18th of June a quantity of turbid, fœtid liquid flowed from the vagina; the uterus contracted, and the hypogastrium appeared to diminish in volume, whilst the contraction simulating labour-pains soon ceased: the cervix uteri dilated no more, and the woman regained her appetite, and reacquired her strength.

In the beginning of July, the skin round about the umbilicus became red; the navel projecting, became of a livid colour: it opened in a few days, and gave issue to a yellowish-green liquid, like that which had come from the vagina. Some days later the patient felt a foreign body in the vagina, which she drew out; it was a bone, two inches and a half long, and of the diameter of a crow-quill.

On the 15th of July, M. Richter was consulted for the first time, who found the patient in the following condition:—She had hectic fever and hurried respiration; a deep breath produced pain in the hypogastrium. The abdomen, except the epigastrium and hypochondria, was hard and painful, especially about the umbilicus, and towards the anterior superior spinous process of the left ilium; this region was distended, and formed a rounded tumour, to the left of the ulcerated navel, where there was an opening of a quarter of an inch in width, and giving issue to pus. The external genital parts were tumefied and painful, as well as the vagina, whence proceeded a fluid like that which escaped from the umbilicus. At the orifice of the uterus Dr. R. felt the end of a bone, which was so firmly fixed that it could not be removed with forceps. According to the patient, air escaped from time to time from the umbilical opening; there was no doubt, therefore, as to the rupture of the womb, which had probably occurred when the woman fell. Frequent injections of warm water were made in order to clean the womb; by means of a forceps constructed on purpose, several bones of the extremities of a fœtus were extracted. The patient was made to take doses of decoction of Iceland moss, with that preparation of sulphuric acid called the "acid elixir of Haller." Under this treatment the patient improved so much that she was able ever and anon to leave her bed. She was often tormented with the flatus, which passed not only by the anus but through the umbilical opening; but from this last opening no stercoraceous matter passed.

Towards the end of August the fever returned; the left leg and thigh became œdematous, and the left knee painful. An inch below the umbilicus the skin grew red, opened, and gave issue to a pus like that which came from the navel. By means of a sound, Dr. Richter assured himself that these apertures communicated with each other, and that at the bottom a hard, insensible substance was felt. The isthmus between the two openings grew gradually narrower, and finally disappeared: the opening that remained was an inch and a half in diameter, and towards the end of August had become twice the size, by the pressure from within

outwards, of a greyish-white lump. Bark and sulphuric acid were given to the patient, she grew better, the œdema disappeared, and the strength returned. By means of a pair of scissors, M. Richter removed as much as possible of the greyish lump: he soon encountered a hard body, which he detached with care, and extracted—it was the right scapula of a fœtus. The operator divided, as far as the space permitted, the ribs, which he found under the scapula, drew out the heart, the lungs, and as many of the soft and osseous parts as he could reach. Finally, with the aid of a forceps, he succeeded on the 14th of September in extracting the rest of the fœtus, except the cranium: the patient being much exhausted, he removed that four days later. There remained no longer a doubt but that the digestive canal was open, for stercoraceous matter passed through the fistulous opening and through the vagina. To sustain the strength, Dr. Richter prescribed decoction of bark, and lavements of beef-tea, containing the yolk of an egg; and a plaster of acetate of lead was placed over the fistulous opening.

On the 3rd of October the patient had vivid pains in the bowels, produced by goose and cabbage, which she had eaten in great quantity. These pains continued undiminished for thirty-six hours. After this epoch the discharge from the vagina and from the fistula diminished rapidly: it had completely ceased on the 13th of October, and the dejections had taken their proper course through the natural passages. The patient recovered perfectly, and resumed her domestic avocations.—*Austrian Med.* "*Weekly-Writ.*"

MALIGNANT (?) TINEA SUCCESSFULLY TREATED.

F. Burrmann, ætat. 18, was affected from infancy with a porrigo of the head, which had resisted every kind of treatment, and had been much aggravated within the last year. All the head, from the forehead to the nape of the neck, was covered with a yellow crust, from which emanated an offensive sanies: it was a bad case of the *porrigo lupinosa* of Bateman. M. Fisher gave a mixture consisting of sulphate of soda, with infusion of rhubarb and senna, daily, to be swallowed: he also gave him small doses of the perchloride of mercury five times a-day. At first the head was washed with soap and water, afterwards the following ointment was given: —Take of red precipitate, half a drachm; Venice turpentine, two drachms; lard, half an ounce: mix into an ointment, of which a piece, the size of a bean, may be rubbed into the head, night and morning. At the end of six days the eruption was considerably better, and the hair had begun to show itself. A tisane of sarsaparilla and bardanum was now freely given to the patient. At the end of three weeks the patient was perfectly cured, and the malady has not returned at the end of three months.—*Austrian Med.* "*Weekly-Writ.*"

LETTER FROM DR. LAYCOCK.

To the Editor of The Lancet.

Sir,—In a letter which I found it necessary to address to you on the constitution of the Provincial Medical Association, I showed by facts and documentary evidence, that the working of the representative principle, with which we are told that body is thoroughly imbued, was very unsatisfactory, if not absurd. A reply to the animadversions which "some" have made on the constitution of its council, has since appeared in the acknowledged mouthpiece of Dr. Hastings; and it is attempted to be proved that the council is not too numerous, and that it is elected strictly on the representative principle. This reply, I am happy to state, is written in a courteous and temperate spirit, very different, indeed, from that exhibited in a letter signed *Verax*, which appeared a short time previously in the same journal. I regretted much to observe that Dr. Hastings should think it necessary, even in his own defence, to sully its pages with an anonymous letter so full of gross flattery of himself, and containing so cowardly an attack upon two members of the association. It is a fair specimen of the effusions which the unmanly tribe of X-Y-Z scribblers pour out, when safely shrouded in their congenial obscurity. Dr. Hastings would have boiled with indignation, if a member of the association had entered the meeting at York with crape on his face, and his coat turned, and had been permitted to address to it such language respecting himself, as *Verax* has deliberately delivered in print to the whole body, respecting Professor Maunsell and your humble servant. Dr. H. being the acting general secretary, is responsible for the proper conduct of the organ of the association, just as the president is responsible for the order of its meetings; and for the credit of the association as well as for his own, he ought to unearth the *veracious* skink, and give those concerned an opportunity of holding it up by the tail. Such agents and allies as *Verax* and the unhappy York "secretary," who figured off in my last letter, do great harm.

Having made these preliminary remarks, I would observe, that in the reply to which I have alluded, the writer begs the question at the outset. He styles certain persons councillors, *ergo*, they are councillors; a sort of logic by which he could infallibly prove a poker to be a diamond ring. In attempting to show that the council is not too numerous, he enters into a detail of its duties, and proves quite satisfactorily that the individuals

composing it are useful as collectors of annual subscriptions, or as the agents and correspondents of "the officers," i. e., of Dr. Hastings. He also makes it plain that the "councillors" resident at Worcester must necessarily be the real councillors, because the "officers" reside there; a statement, however, which no one will doubt, as the fact is pretty well known by experience already. But the main point is wanting. There is no documentary or other evidence to prove that the three hundred and forty collectors, agents, or correspondents of the "officers" ever meet in council, or direct the general proceedings of the association. It is true, a few York members transacted some business with Dr. Hastings, and two or three others, on the day before the general meeting; but the nature of that business has not transpired, except that that document was then agreed to, which was read on the next day as the "report of the council." Whether this be a correct designation of the document is very questionable.

The arguments brought so gravely forward to prove that such councils and councillors are manufactured on the representative principle, were surely written as a good jest. What, I ask the writer, would the House of Commons be if the members were re-elected annually in one batch, without previously referring them to their constituents? Or what, if that honourable house had power to add to its numbers, as the three hundred and forty "councillors" have? Or what would be thought if a few honourable members, say a dozen, were to transact the whole business of the country, and put forth to the nation such a luminous financial statement as the following?

The income amounts to...	£1440	8	5
The expenditure	858	7	5
	£ 582	1	0

Which is, word for word, the financial statement of Dr. Hastings's council. Annual parliaments and a surplus revenue would be jumped at; but if Dr. Hastings were to come out as a Parliamentary reformer, with his "representative principle" on his back, he would, I fear, be quickly pinned down and stowed away in the cabinet of some political virtuoso, as a rare and unique specimen of the genus.

I utterly disclaim any participation in the desire to break up the association attributed to "some," under the poetical simile of wishing "to guide it amidst shoals and sunken rocks." It is a cranky piece of craft to be sure, but is well worth keeping afloat. Yet, surely, if even a youngster of thirty or so see breakers a-head, he may be allowed to give notice of the same without being stabbed at in the dark. Let the association seek a *bonâ fide* union of the profession in an effectual system of self-government, such a system, I mean, as will give the *practitioners in the remotest rural districts equal privileges* with the Worcester councillor or the metropolitan practitioner; in short, let it embody the principle of the *Warburtonian* plan in a machinery so contrived, that *the opinion of the majority shall be elicited simply, quickly, and efficiently* (no great difficulty, by-the-bye), and I will take my place before the mast, and pledge myself to stick to the ship so long as two planks hold together.

One cannot imagine what the London medical corporations are about while these proceedings are going on around them, unless they be innocently considering whether or not medical reformers are huge ogres, who would rush savagely forward and swallow them up quick, the moment their doors were opened. If so, it is an unnecessary alarm; for it appears to me as clear as possible, that if a provincial physician can raise a voluntary association confined to the provinces into the possession of an income of 1440*l.* per annum, and that with only the shadow of self-government, the corporations might double the sum, by admitting the excluded members resident in both the metropolis and provinces to an equitable and substantial share in the government. In fact, by snug management, they might get an addition to their incomes of some 3000*l.* per annum, and so, instead of being devoured by hungry medical reformers, would be gorged with guineas to within a hair's-breadth of apoplexy. I should also suppose that the president of a college, placed in the chair by the suffrages of four thousand or five thousand of his brethren, would be a much more influential and dignified individual than the man who climbs to office on the slippery, wriggling backs of a selfish clique, however great his talents may be. I am, Sir, your obedient servant,

T. Laycock.

York, Sept. 25, 1841.

WESTMINSTER HOSPITAL.

CASE OF NATHAN CURREY.

To the Editor of The Lancet.

Sir,—A communication having been sent you, *purporting* to have been written by the parent of Nathan Currey, and headed "Treatment of a Boy at the Westminster Hospital," I beg leave, having been house-surgeon at the time, to put you in possession of the true facts of the case.

Nathan Currey, ætat. 8, *a perfect idiot, dumb*, afflicted with *chorea* and *rickets*, was admitted into the Westminster Hospital, April 19, 1840, with a simple fracture of both bones of the leg. He was immediately placed in bed, and the limb put (as we always do at the Westminster) between those admirable things called junks (of which more anon), and so secured that it was thought by

all present an utter impossibility for the leg to be moved; but in the course of the night the child had so far recovered his liberty, that, on my going round in the morning, I deemed it necessary to immediately place the fracture on Mr. Amesbury's apparatus, which, from the peculiar circumstances of the case, I did with the greatest care and attention, and again fixed the child, by rollers and other means, with the view of keeping it perfectly quiet. This was successful for about two days, when, in spite of everything, the child got his foot out of the shoe, and consequently once more put the leg out of position. I again set it, this time putting on the under splint, which appeared to keep the limb in its proper place, but after a short time, from continued restlessness and attempts to get out of bed, &c., it was found impossible to keep the leg quiet. I then, after resetting it several times, abandoned the Amesbury, and substituted Desault's long splint, with others, on the leg, the whole being encompassed by several rollers; but from the constant filth the child was in from every time its bowels were open, dirtying the bed, &c., the bandages were frequently obliged to be removed.

In spite of every unfavourable circumstance, I can prove, by the dressers and others, that the child was dismissed at the expiration of nine weeks, with the leg *straight*, but with a greater quantity of provisional callus thrown out than is usual, in consequence of its having been necessary to remove the rollers so many times.

The child passed the board in the usual way, when the chairman asked his father, among the rest of the patients discharged that day, if they had any complaints to make, when no answer was returned. If the father did not feel satisfied, why did he not complain then, and not twelve months after bring his child to the hospital with his leg much bent, and state it had not been properly set.

In my opinion the case is obvious enough; the child, since his discharge from the hospital, not being taken sufficient care of. From the constant contraction of the muscles consequent on chorea, the inability of the parent to keep the child quiet, it at the same time being afflicted with rickets, the leg was drawn into the convex position by the action of the muscles.

With regard to the junks being employed, if Mr. Hill (the honour of whose acquaintance I have not) will take the trouble of coming to the hospital he will at once see the utility of them, they being merely two round bolsters made quite hard by being stuffed with bran, and placed on either side of a fractured limb, *after it has been set*, with a cradle over the whole, so as to render it, except in a case like the present, almost impossible to be moved by any effort of the patient.

In conclusion, allow me to say, that during the twelve months I was house-surgeon to the Westminster Hospital, I never had a case which gave me so much trouble, as I can prove, from sheer necessity, having set and reset that child's leg more than twenty times; at intervals it made such maniacal screeches, as to entirely prevent the other patients getting any rest. I am, Sir, your obedient servant,

B. W. Holt.

1, Broad Sanctuary, Oct. 13, 1841.

REMARKS BY DR. CLENDINNING ON THE MEDICAL ARRANGEMENTS OF THE ST. MARYLEBONE INFIRMARY.

To the Editor of The Lancet.

Sir,—I perceive at p. 64 of the last number of The Lancet, an editorial notice of a letter signed "A former Pupil," which letter is subjoined to the article, and professes "to correct the inaccuracies put forth in the statements of last week" relative to the St. Marylebone Infirmary.

Now the letter might be passed by unnoticed, for anything of fact it contains, as a harmless growl. It impugns no averment of the statement to which it refers, disputing neither the correctness of the numbers, nor of the individual names, nor official strength or designations, nor, in fact, of any point of information communicated to The Lancet with respect to the infirmary. In fact, it fully confirms (unintentionally, I presume,) the statements of your private informant by reaffirming several, and leaving wholly unquestioned others, of his assertion.

What then are the inaccuracies on account of which the authorities that sanctioned "the statements of last week" are thus editorially summoned to answer, in the favourite court of appeal of the medical student of London, in The Lancet?

To this I can find no appropriate answer, as I think, either in the letter itself or the editorial notice, which gives to that letter whatever of importance it possesses.

Fault, however, is found, to which the editor calls attention generally. The "former Pupil" is discontented, if not with what has been said, yet at least with what has been omitted of what in his opinion ought to have been said.

Your informant of last week is clearly charged by him with the *suppressio veri*; and, indirectly, even the *suggestio falsi* is imputed. But by whom are such charges made? There is intrinsic evidence of something untrustworthy about the letter, even in the signature of "A former Pupil." *Ex gr.*: He speaks of "*the two physicians* who permit pupils to go round with them." Now the creation and appointment of a third physician is an affair of a few months since. No third physician (exclusively of the physician accou-

cheur) existed in the time of any *former* "pupil."

The text of the letter also is liable to grave suspicion, being deceptive doubly; viz., in some things that it states, and in others that it omits. *Ex gr.*: It refers with blame to a regulation which limits the attendance of physicians' pupils to certain hours; but it withholds allusion to the fact that restrictions of a similar kind exist in hospitals and infirmaries generally, and are, indeed, essential to good order in such large establishments; and that in the infirmary, as elsewhere, certain hours are named in the rules, only because those medical officers are usually absent before and after those hours, who should assist, superintend, and instruct the pupils of the infirmary. This will appear clearly from this—that the pupils of the resident physician are, though inmates of the house, under no restrictions from the board as to visiting the wards, and evidently because the resident physician may be, and, as a salaried officer, is presumed to be, always on the spot, to control as well as teach them. Again: he says, "there is no time to devote the least attention to morbid anatomy." Now he had said just before, in describing the usual course of things, that the physician "may have half an hour to devote to the dead-house" after the visit to the wards. It might, therefore, be asked, In how many large establishments in London does the physician on duty usually devote half an hour, or any other fraction of an hour, to the dead-house?

Further, it might be asked, Has it ever happened on any of the numerous occasions on which autopsies have extended over two o'clock, that a pupil has been required to retire at that hour, even although a physician were not present? I have never heard of such a thing.

Third example. He complains that the physician's visit is finished in an hour, or thereabout, including thirty or forty cases. Now this statement is true of the milder months, when cases are fewest, and students are least in attendance; but not true of the winter and spring, when the house is full, and disease is severe. In those seasons, an hour and a half is the least, I should say from much observation, that the visit occupies. And two hours are not unfrequently devoted to it. Then he charges upon the statement of last week, errors, of his own imagining, with respect to out-patients, midwifery cases, syphilis, &c., the physician accoucheur, surgeons, and assistant house-surgeons, were all named in the statement, and credit was given to the student for intelligence enough to know without explanation that midwifery cases were not attended by the physicians; nor cases of syphilis; and that neither, therefore, could be included in the physicians' instruction. The out-patients were named merely to show more completely the extent of the operations and comparative importance of the institution, of which many might be expected to know but little from other sources. They are charged for at no hospital, by whomsoever attended, as everybody knows, and are seldom, if ever, included in the physicians' instruction.

You will now be sufficiently able to judge whether "A FORMER PUPIL" has fairly stated such portion of the case as his ostensible objects required that he should deal with. For the rest, the matter is left, and with full reliance on his sense of justice, in the hands of the editor of THE LANCET. I have the honour to be, Sir, your obedient servant,

JOHN CLENDINNING,
Senior Physician to the Infirmary.
16, Wimpole-street, Oct. 8, 1841.

ABUSE OF MEDICAL CHARITIES. LONDON HOSPITAL.

To the Editor of THE LANCET.

SIR,—Satisfied as I am that your pages are ever open to the correction of abuses in public institutions, I shall not make any apology for troubling you with the following instance, which, I am sorry to say, is of very frequent occurrence in the metropolitan hospitals and dispensaries.

Last week I was called to attend Mr. Poulter and his son, of the Virginian Planter, Gibraltar-walk, Bethnal-green-road, when, after two or three days, much to my astonishment, I was told that I might discontinue my visits, as the distiller, Mr. Curtis, of the Mile-end-road, had called in for orders, and having ascertained that the landlord and his son were indisposed, had presented them with an out-patient's ticket for the London Hospital, where they could consult his physician, Dr. Gordon, and procure their medicine gratuitously.

Now, Sir, without attributing any improper motives to this worthy distiller, I do think that more care should be exhibited by him and other governors in selecting proper objects upon whom to bestow the blessings and benefits that such very excellent establishments are capable of affording. I have the honour to be, Sir, your obedient servant,

JOSEPH HODGSON.
Spitalfields, October 7, 1841.

NEW TEST OF ATTENTION AT ST. GEORGE'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—A novel mode of determining the prizes in the midwifery class of St. George's Hospital School—not less remarkable for its ingenuity than for its discrimination—is propounded for the admiration of other schools. The prize is to be awarded to the student, who, at the end of the session, shall produce the best notes of the lectures. With this ar-

rangement I am especially gratified. Being one of those unfortunate individuals who are unable to profit by the exercise of their memory, or their reasoning faculties, I have hit upon another way of gaining the favourable notice of my teachers. With this view I have provided myself with a voluminous note-book, and, taking my seat in a conspicuous place in the lecture-room, I have become distinguished for my diligence in transmitting to paper the learned discourses of the professors. Having trained myself in this way, I entertain the most sanguine hopes of earning, at the end of the session, the prize in midwifery, as the reward of my industry; and I would venture to remark how much better it is to preserve the precepts of wisdom on the durable page of my note-book, than on the fleeting tablet of my memory. I have sent you this communication in the hope that when once the plan is generally known, it may be more extensively adopted, for in proportion as the facility of short-hand writing is made the standard of medical knowledge, shall I indulge the expectation of achieving the highest honours of the profession, and of being enabled to despise the habits of practical observation cultivated by my competitors. I remain, Sir, yours respectfully,

STENOGRAPHOS.

P.S.—I have a relation in the country who is a reporter for the newspapers; would it not be an excellent plan for him to come to town and engage in teaching short-hand to medical students?

CURVATURE OF BONE WITHOUT FRACTURE.

To the Editor of THE LANCET.

SIR,—Dr. Mantell, in his note in your Journal of the 9th instant, seems to sneer at my calling my cases "curvature without fracture," and says that I may be at liberty to entertain what opinion I please; so I intend. He says, his cases "did not comprehend the bending of the flexible bones of infants, an occurrence familiar to every nurse." If Dr. Mantell had read my letter attentively, he would have seen that I said that "it always occurred in children," and my quotation was to the same effect; therefore he had no reason to suppose my cases to have been all to be those of infants: my cases, excepting the infant, were between three and seven years; but his own six cases he puts down as all cases of *partial* fracture with curvature. On seeing a sketch of one solitary bone near five-and-twenty years after his first case, I should think it would take more than an old nurse to suppose they were all cases of the partial fracture!

I certainly will admit that it is, as Dr. Mantell says, "*possible*," but *highly improbable*. The letter from Mr. Gibson in your Journal I apprehend bears me out in my inferences on my own cases. Your obedient servant,

G. J. S. CAMDEN.

Hounslow, October 11, 1841.

HABITATS OF INFUSORIA.

To the Editor of THE LANCET.

SIR,—In answer to the questions put relative to the habitats of certain infusoria, in the last number of your Journal, I beg to remark that I have never but once seen the living xanthidia; and those specimens were obtained from the superficial mud of a ditch at Byefleet, in Surrey. Mr. Ross, of Regent-street, informs me, that he has also seen them once from some part of the Thames, but he does not exactly know the locality. There are some curious facts relative to the habitats of infusoria; their total disappearance from spots where in former years they remarkably abounded, the seasons in which certain of them should be sought for, and other minutiæ, which would occupy too much space in your Journal to dilate upon.

If your correspondent "H. L." will favour me with a call, or by inquiries by letter on this subject, I shall be glad to give him any information in my power. I am, Sir, your obedient servant,

JOHN DALRYMPLE.

6, Holles-street, Oct. 12, 1841.

RAPID PROGRESS OF DISEASE IN A CHILD.—Mr. Toogood had attended a child, two years old, in March; he recovered completely. On the evening of the 8th of May he was apparently quite well; at midnight the nurse found him hot and feverish, and she put him in a warm bath at three o'clock in the morning, and gave him castor-oil. Mr. T. saw him at 7, a.m., when he had much pyrexia. He gave him a dose of basilic powder at 9, a.m. The lower part of the abdomen was livid, and numerous petechiæ were about his person. Convulsions, screaming, and total insensibility succeeded rapidly, and at 2, p.m., he was dead.—*Post-mortem*. Light marks of inflammation, and slight deposition of lymph on the surface of the brain, and a large collection of fluid in the ventricles were detected; in no other part were there any traces of disease.—*Prov. Jour.*

TO CORRESPONDENTS.

Dr. Mantell remarks on the communication of Mr. Gibson (of Glasgow), p. 59, that the *only* case in which Mr. Gibson admits he *could satisfy himself* that *partial fracture had taken place*, was clearly a simple transverse

fracture of the femur without displacement. "The great facility of bending the bone at that part backwards and forwards, or outwards and inwards, as the fracture may be," so far from being a diagnostic symptom of partial fracture of the thigh-bone, as stated by Mr. Gibson, is decided proof that the fracture is complete. The case of Mr. Gibson's "perfect devil" of six years old, was evidently one of complete fracture, and the arm ought to have been supported till union had taken place. On the cases of curvature from the bending of the flexible bones of infants, no comment is necessary: Dr. Mantell's observations were restricted to partial fracture of the radius.

H. M.—Impregnation cannot occur without actual contact of the male fluid with the ovum of the female. That such is the case is proved by the recent observation of spermatic animalcules within the Fallopian tubes, and upon the surface of the ovaries. All other speculations are absurd.

Probe.—John Hunter, on Gunshot Wounds; Mr. Guthrie's work on the same subject, and Hennen's Military Surgery. Annesley on the Diseases of India; and Dr. Johnson on the Influence of Tropical Climates on European Constitutions.

A Book-keeper.—We must refer our correspondent to his surgeon. It is quite impossible to form any notion of his disease, from the name which he has given to us.

A correspondent asks, What should be done with a pupil of an hospital who privately tells certain patients that they would not be cured in the hospital, and entices them to his own house in order to submit them to an operation? We can scarcely believe such conduct to be possible in a man pretending to a gentlemanly education; such a person should be instantly expelled from the hospital.

The communication of *Mr. Searle* has been received.

A Student.—It does not confer one legal qualification on the possessor, whether in town or country. The successful candidate simply expends the money, undergoes the labour, and enjoys the self-gratification, which are consequent on any scheme of the kind, pursued to a fruitful conclusion. He may regard the possession as an honour, if he please.

The letters of *Mr. Wm. J. Stuart* and *Shade of Smellie* fall under the same head as those which we have noticed in another acknowledgment to correspondents.

T. A.—1. Probably, want of power in the heart. 2. A plain and nutritious meat diet, exercise, warm and cold bathing, woollen coverings.

The letters of *Mr. Orton*, *An Accoucheur*, *A Constant Reader*, and *Mr. Mellnish*, were received; but as we shall insert one letter on the same subject, our correspondents will probably consider it unnecessary to publish the remainder.

Expilatus complains that he was overreached. The grievance belongs to a court of caution, if not one of law, and cannot appropriately be published in a journal of medicine, although the parties belong to the profession. The frequency of such cases might justify us in keeping always in type somewhere in our pages, "Take care of your pockets;" but to insert statements of private circumstances in which the warning has been overlooked, would be impossible.

The publisher will reply by letter to the question of *Mr. Crabb*.

We have this day (Oct. 14th) received a letter signed *Robert Otter Blythman*, dated from Swinton, near Rotherham, Yorkshire, stating that the report of a case of ruptured uterus published in THE LANCET of Oct. 2nd, professing to have been written by Mr. Blythman, is a forgery. At present we can only make this announcement, but the allegation shall receive prompt investigation. As yet we cannot tell which letter really contains the signature of the veritable correspondent. We are inclined to believe that the second is the true signature.

Dr. Shearman, and several other correspondents, will perceive the reason for the omission this week of their respective communications.

Dr. Bedingfield's, *Mr. Kimpton's*, *Licut. Evans's*, and *Mr. Prowes's* letters next week.

Mr. Searle's communication for insertion as early as space will permit.

Dr. Florance.—Had the young man been acting *with* the law, but needed support, instead of wilfully, and after warning, *against* it, he should have had any aid that the press in this Journal could have afforded him, but as the matter stands we can render him no assistance. We are not advocates for harsh prosecutions, but the law at present is making no distinctions of persons, and the party in question could reasonably have expected no other than what has happened.

The letter of *A Student of the St. Marylebone Infirmary* reached us too late for insertion this week.

Errata.—In the article containing a transcript from the letter of *Mr. Moore*, of Dublin, at pages 71-72 of last week's LANCET, the words "*To the Editor*, &c., Sir," at the commencement, and the closing lines beginning "I am, &c.," should have been omitted, having accidentally obtained a place in print, by an oversight.—By a mistake of the printer a sentence in *H. L.*'s inquiry is rendered unintelligible. It should have been thus: "The abundance of the *loricæ*, or cases of xanthidia in some *flints*, is such, that it becomes important to ascertain what relation exists between the recent and fossil species."

Showing the No. of Deaths from all Causes, Registered in the 5 Weeks, ending Saturday, Sept. 25, 1841.

Causes of Death.	August 22 to 28	August 29 to S. 4	September 5 to 11	September 12 to 18	September 19 to 25	Weekly Av. 1838-40, (corrected).
Small-Pox	7	9	10	8	4	36
Measles	23	23	22	15	24	24
Scarlatina	17	18	12	12	18	38
Hooping-Cough	24	29	49	45	42	28
Croup	8	7	6	8	4	7
Thrush	6	9	10	12	8	5
Diarrhœa	15	20	37	27	23	8
Dysentery	3	4	1	5	3	2
Cholera	2	2	4	2	4	1
Influenza	....	....	1	1	....	1
Typhus	15	36	21	30	34	46
Erysipelas	1	3	6	4	2	7
Syphilis	2	....	1	....	....	1
Hydrophobia	....	....	....	....	....	.1
TOTAL	124	160	180	169	168	204
Cephalitis	11	9	15	13	14	11
Hydrocephalus	29	28	37	37	41	34
Apoplexy	11	12	13	10	12	18
Paralysis	12	6	13	7	6	15
Convulsions	55	60	66	67	71	60
Epilepsy	5	5	1	4	2	4
Insanity	1	1	....	....	....	1
Delirium Tremens	2	....	2	1	3	1
Dis. of Brain, &c.	6	7	11	8	10	7
TOTAL	132	137	158	147	159	151
Quinsey	1	1	3	1	....	1
Bronchitis	5	6	8	8	9	9
Pleurisy	....	1	2	1	2	2
Pneumonia	49	58	53	81	62	72
Hydrothorax	2	2	5	2	1	5
Asthma	11	5	11	7	12	24
Consumption	119	136	147	137	136	141
Dis. of Lungs, &c.	6	12	9	10	13	12
TOTAL	193	221	238	247	234	266
Pericarditis	....	....	1	....	1	.6
Aneurism	1	1	....	....	....	.6
Dis. of Heart, &c.	16	20	10	20	17	17
TOTAL	17	21	11	20	18	18
Teething	11	21	30	22	17	17
Gastri.—Enteritis	25	24	34	32	22	18
Peritonitis	1	1	1	....	....	2
Tabes Mesenterica	6	5	7	7	5	4
Ascites	1	1	2	....	....	1
Ulceration	2	1	1	....	1	1
Hernia	4	2	2	....	3	2
Colic or Ileus	4	1	3	2	2	1
Dis. of Stomach	5	3	7	4	2	4
Hepatitis	4	1	2	2	2	1
Jaundice	....	2	....	2	5	2
Dis. of Liver, &c.	9	9	12	9	10	7
TOTAL	74	71	101	80	69	60
Nephritis	....	1	....	1	....	.4
Diabetes	1	....	....	....	....	.2
Stone	1	1	....	....	....	.5
Stricture	....	....	1	....	1	.4
Dis. Kidneys, &c.	2	1	1	3	4	2.4
TOTAL	4	3	2	4	5	4

Causes of Death.	August 22 to 28	August 29 to S. 4	September 5 to 11	September 12 to 18	September 19 to 25	Weekly Av. 1838-40, (corrected).
Childbed	7	4	4	7	2	7
Ovarian Dropsy	2	....	2	....	....	.2
Dis. of Uterus, &c.	3	4	1	....	3	2
TOTAL	12	8	7	7	5	9
Rheumatism	3	2	4	2	2	3
Dis. of Joints, &c.	4	4	2	.. .	2	3
TOTAL	7	6	6	2	4	6
Ulcer	1	1	....	....	....	.4
Fistula	....	....	....	....	....	.4
Dis. of Skin, &c.	....	....	....	....	....	.3
TOTAL	1	1	....	....	....	1
Inflammation	5	3	4	6	3	12
Hæmorrhage	1	7	3	4	3	3
Dropsy	25	20	29	31	34	34
Abscess	1	4	3	6	6	4
Mortification	6	3	2	6	6	5
Scrofula	6	1	3	5	2	2
Carcinoma	8	9	18	7	8	7
Tumour	....	3	1	3	3	2
Gout	....	....	....	....	....	1
Atrophy	14	10	10	13	9	4
Debility	22	21	22	16	30	15
Malformations	....	1	1	....	1	1
Sudden Deaths	12	9	10	11	6	13
TOTAL	100	91	106	108	111	103
Old Age	53	45	44	65	52	71
Intemperance	2	1	1	2	1	.6
Privation	....	....	....	....	1	.4
Violent Deaths	23	21	14	10	29	24
TOTAL	25	22	15	21	31	25
Causes not Spec.	3	2	1	7	1	8
Deaths, all Causes	745	788	869	877	857	926
No. of Week	34	35	36	37	38	....

1840—41.	Ages. 0 to 15	15 to 60	60 & upwards
Aug. 22nd to 28th	371	240	134
29th to Sept. 4th	474	215	118
Sept. 5th to 11th	472	261	135
12th to 18th	368	261	140
19th to 25th	436	294	127
Weekly Average, 1838—40	438	314	171

TEMPERATURE	High.	Low.	D. Mean.
Week ending Aug. 28	77°	51°	61°
" Sept. 4	77	51	64
" 11	69	43	57
" 18	79	50	66
" 25	70	51	61

	Estimated Pop. 1840.	Aug. 22 to 28.	Aug. 29 to Sept. 4.	Sept. 5 to 11.	Sept. 12 to 18.	Sept. 19 to 25.	Weekly Av 1838-40
West Districts	308,921	110	112	115	117	112	139
North Districts	414,458	130	136	149	174	136	163
Central Districts	309,722	139	175	183	183	204	190
East Districts	411,634	173	168	204	190	224	211
South Districts	450,265	193	197	218	204	181	223
	1,955,000	745	788	869	877	857	926